



# Periodic Review Report

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Marcus Garvey Apartments  
NYSDEC BCP #C224198  
650 Rockaway Avenue  
Brooklyn, New York

June 4, 2019

Prepared for:

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# Executive Summary

This document is required as an element of the remedial program at 650 Rockaway Avenue in Brooklyn, New York (hereinafter referred to as the Site) under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C224198-02-15, Site Number C224198, which was executed on March 25, 2015. Elevated levels of the chlorinated volatile organic compound (CVOC) tetrachloroethene (PCE), along with some of its breakdown products trichloroethene (TCE) and cis-1,2-dichloroethene (1,2-DCE), were observed in soil, soil vapor, and groundwater on the northern portion of the Site in the vicinity of the former dry-cleaning tenant, Johnny's Cleaners. Contamination extended into some off-Site groundwater monitoring wells to the southeast. Due to the nature and extent of contamination of the Site, the NYSDEC and NYS Department of Health (DOH) determined that this Site posed a significant threat to human health and the environment prior to remediation. A remedial program was implemented in 2016 before entering the Site Management phase of the project. The Site Management Plan (SMP), dated November 2016, was approved by NYSDEC on December 12, 2016. The required Site-wide inspection and monthly operation and maintenance (O&M) inspections were completed during this SMP monitoring phase. The components, data, and rationale included in this Periodic Review Report (PRR) demonstrate that the engineering and institutional controls are performing as designed, are effective, and are compliant with specifications described in the SMP. Concentrations of CVOCs have been consistently low to non-detect in groundwater monitoring wells at the Site; therefore, the Volunteer respectfully requests that the Site groundwater sampling program be terminated at this time, as described further below.



# 1. Introduction

This PRR documents post-remediation activities performed from April 12, 2018 to April 12, 2019 at the site located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in the Brownsville section of Brooklyn, New York (Site; Figure 1). Marcus Garvey Preservation LLC (Volunteer) entered into a BCA with the NYSDEC in March 2015 (NYSDEC Site Number C224198) to investigate and remediate the 0.328-acre property located at the above address. The BCP Site is known as Marcus Garvey Apartments.

The property was remediated to meet the NYSDEC title 6 of the Official Compilation of New York Codes, Rules, and Regulations (6 NYCRR) Part 375 Restricted Residential Use Soil Cleanup Objectives (RRSCOs). The Site is entirely comprised of one mixed-use commercial/residential building with a one-story commercial (i.e., retail) component located along Rockaway Avenue and a 55-unit, four-story residential component located immediately behind (west) of the commercial component. Some of the retail spaces have basements, the residential spaces do not. The first story of the building is divided into two separate parts (a north part and a south part) by an east/west passageway that leads from the sidewalk to the courtyard behind the building.

The SMP, dated November 2016, was approved by NYSDEC on December 12, 2016 and the Certificate of Completion (COC) for the Site was also received on December 12, 2016. The Site Management activities, reporting, and Institutional Control (IC)/ Engineering Control (EC) certifications are scheduled on a certification period basis. This certification is based on the submission of a PRR, submitted to the NYSDEC every year beginning sixteen months after the COC was issued and once per year thereafter. These PRRs will identify and assess all of the IC/ECs required by the remedy for the Site, any environmental monitoring data and/or information generated during the reporting period, and a complete Site evaluation which discusses the overall performance and effectiveness of the completed remedy.

The Site Management PRR and IC/EC Certification Submittal reminder notice was submitted to Roux on May 6, 2019 stating a due date no later than May 12, 2019. Roux requested an extension of the due date for this submittal and on May 6, 2019 NYSDEC granted a 30-day extension of the deadline.

## 2. Site Overview

### 2.1 Site Description and History

The Site is located in the County of Kings, Brooklyn, New York and is identified as Block 3575 and Lot 11 on the New York City Tax Map. The Site is situated on an approximately 0.328-acre area bounded by Dumont Avenue to the north, residential/commercial buildings to the south, Rockaway Avenue to the east, and a courtyard beyond which is a multifamily residential building with security, administrative, and maintenance facilities to the west (Figure 1). The Site is entirely comprised of one mixed-use commercial/residential building with a six unit, one-story commercial (i.e., retail) component located along Rockaway Avenue and a 55-unit, four-story residential component located immediately behind (west) of the commercial component. The first story of the building is divided into one northern part and one southern part by an east/west passageway that leads from the Rockaway Avenue sidewalk to the courtyard to behind the building. Some of the retail spaces have basements, the residential spaces do not. Historically, the Site has been used as mixed residential/commercial use since the early 1900s and the current Site building was constructed circa 1974. Previous Environmental Site Assessments (ESAs) identified a former dry cleaners (Johnny's Cleaners) as a recognized environmental concern (REC) with respect to the Site, which reportedly operated from 1995 to 2011 and occupied the northernmost commercial unit, closest to the intersection of Dumont and Rockaway Avenues. It was also determined by the Volunteer that a second commercial space to the south was historically used as a restaurant but could have historically been used as a separate dry cleaners space.

### 2.2 Summary of Remedial Action

Following the BCP Remedial Investigation, and NYSDEC approval of the Remedial Investigation/Remedial Action Work Plan (RIR/RAWP), Volunteer began remediation at the Site in May 2016. Since then, Volunteer has fully implemented and completed the approved remedial program. All remedial work was done with oversight, understanding, and direction from the NYSDEC.

The following were the components of the selected remedy:

1. Source excavation of soil/fill exceeding RRSCOs:
  - o Soils acting as a source of continued groundwater contamination were excavated and disposed of off-Site; and
  - o Confirmation/documentation soil samples were collected after source excavation took place to gauge presence of residual contaminated soil left in place.
2. Construction and maintenance of a Site Cover System consisting of the following elements to prevent human exposure to remaining contaminated soil/fill remaining at the site:
  - o Building foundations (concrete slab/ footings/ basement walls);
  - o Gravel or dense graded aggregate (DGA); and
  - o Asphalt pavement.
3. Soil vapor mitigation systems consisting of:
  - o A Sub-Slab Depressurization System (SSDS) beneath the entire footprint of the Site building; and
  - o Two supplemental soil vapor extraction (SVE) wells that were installed through the basement of the former dry cleaners and where source excavation took place.

4. Groundwater remediation consisting of:
  - o *In situ* potassium permanganate (KMnO<sub>4</sub>) injections in the northernmost basement of the former Johnny's Cleaners and the former restaurant spaces (basement directly to the south);
  - o Baseline groundwater samples that were collected from the monitoring well network prior to groundwater remediation taking place; and
  - o Groundwater performance monitoring directly following the injections event.
5. Screening for indicators of contamination (by visual means, odor, and monitoring with photoionization detector (PID) of all excavated soil during any intrusive site work.
6. Appropriate off-Site disposal of all material removed from the site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal.
7. Import of fill meeting the requirements of Part 375-6.7(d) was brought in to replace the excavated soil and establish the designed grades at the site. Import of materials used for backfilling and Site Cover System were in compliance with: (1) meeting the lower of the Part 375 Protection of Groundwater or RRSCOs and other specifications included in the RAWP, and (2) all Federal, State and local rules and regulations for handling and transport of material.
8. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site.
9. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) ICs/ECs, (2) monitoring, (3) operation and maintenance and (4) reporting.
10. Periodic certification of the ICs and ECs listed above.

Contaminated soil exceeding RRSCOs was excavated from the basement of the former dry cleaners to four feet below basement slab (ft bbs) between June 6, 2016 and July 5, 2016, using hand tools such as shovels and pick axes (due to space limitations), in a manner that protected the integrity of the existing building. To ensure all hazardous soils were removed and disposed of properly, a one-foot buffer into the non-hazardous soil was added to the original delineation line. Over 40 tons of hazardous soil and over 30 tons of non-hazardous soil and concrete were removed and disposed during the project. Site groundwater treatment was performed in August 2016 with the completion of *in situ* KMnO<sub>4</sub> injections, targeted to neutralize the constituents of concern which are CVOCs, primarily PCE and its breakdown products TCE and 1,2-DCE.

Groundwater monitoring was performed throughout the project. Baseline groundwater samples were collected from on-Site and off-Site wells in July 2016 prior to groundwater remediation. Post-remediation samples were collected in August 2016, five consecutive quarters after the COC was issued through the first quarter of 2018, and during the fourth quarter of 2018 (seven quarters total and six quarters after the COC was issued). All post-remediation groundwater samples collected demonstrate that constituents of concern concentrations within the on-Site monitoring wells have been consistently reduced at the Site by over 96% (from the highest concentrations detected). Concentrations in off-Site wells have been consistently reduced compared to baseline samples and remain only slightly above groundwater standards (discussed in detail below). The groundwater sampling event reports submitted to the NYSDEC since the COC was issued are included in Appendix A.

## 2.3 Remaining Contamination

As described in the SMP, soils exceeding the Part 375 RRSCOs and Protection of Groundwater SCOs are present on-Site. Exposure to remaining contamination at the site is prevented by a Site Cover System over the site. This cover system is comprised of a minimum of asphalt pavement and concrete building slabs. The demarcation layer, consisting of orange snow fencing material in the excavated portion of the basement of the former dry cleaner and the underside of the asphalt or concrete in all other areas, provides a visual reference to the top of the remaining contamination zone. Additional information on Site Cover System components are include in Appendix B.

## 2.4 Institutional and Engineering Controls

Since residual contamination remains beneath the Site, ICs/ECs have been incorporated into the Site remedy as part of the NYSDEC-approved SMP, to provide proper management of residual contamination in the future to ensure protection of public health and the environment.

The Site has ECs consisting of:

- SSDS (including SVE wells); and
- Site Cover System.

The goal of the SSDS is to mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site. The goal of the Site Cover System is to prevent exposure to remaining contamination in soil/fill at the Site. The SSDS and Site Cover System ECs are fully in place and are effective at meeting their objectives.

A Site-specific Environmental Easement was recorded with the Kings County Clerk that provides an enforceable means to manage the remaining contamination at the Site until the Environmental Easement is extinguished in accordance with NYS Environmental Conservation Law (ECL) Article 71, Title 36. The Environmental Easement introduces a series of ICs to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use restricted residential, commercial, or industrial uses as defined by Part 375-1.8(g) only. Adherence to these ICs on the site is required by the Environmental Easement and are being implemented under the SMP.

## 3. IC/EC Plan Compliance Report

Since remaining contaminated soil exists beneath the Site, ICs and ECs are required to protect human health and the environment. This section details the purpose and elements of the IC/EC Plan of the SMP including the inspection, monitoring, and reporting requirements, IC/ECs, whether the IC/EC requirements were met, and regulatory notification and certification requirements.

### 3.1 General

The IC/EC Plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP; included in the SMP) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

The ECs required by the SMP include the installation of a Site Cover System consisting of the following elements to prevent human exposure to remaining contaminated soil/fill remaining at the site:

- Building foundations (concrete slab/ footings/ basement walls);
- Gravel or DGA; and
- Asphalt pavement.

The ICs presented in the SMP consist of the following:

- The property may be used for restricted residential use;
- All ECs must be operated and maintained as specified in the SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Environmental Protection to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on the survey attached to the Environmental Easement, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the site are prohibited except for raised planters.

### 3.2 IC/EC Plan Notification Requirements

Notifications are required to be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (DER-10) for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, Part 375, and/or ECL.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the EWP.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within seven (7) days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing the SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the BCA, and all approved work plans and reports, including the SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

#### 3.2.1 Notifications

There were no notifications submitted to the NYSDEC during the reporting period.

### 3.3 Inspections

In accordance with the SMP, inspections of all remedial components installed at the Site will be conducted. A comprehensive Site-wide inspection will be conducted and documented according to the SMP schedule. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;

- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- If site records are complete and up to date; and
- Reporting requirements outlined in Section 7.0 of the SMP.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within five (5) days of the event to verify the effectiveness of the IC/ECs implemented at the Site by a qualified environmental professional (QEP), as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within seven (7) days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

All inspections were conducted at the frequency specified in the schedules provided in following Monitoring Plan and O&M Plan Reporting sections of this PRR.

### 3.4 IC/EC Plan Certification

For each IC or EC identified for the Site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the ICs/ECs required by the remedial program was performed under my direction;
- The ICs/ECs employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easement;
- The EC systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Noelle M. Clarke, P.E. or Roux Environmental Engineering and Geology am certifying as Owner's Designated Site Representative for the site.

An IC/EC Certification Form for the controls that are currently in place is included as Appendix C.

## 4. Monitoring and Sampling Plan Compliance Report

The various subsections below describe monitoring and sampling required as part of the remedy and also include an evaluation of the remedy performance, effectiveness, and protectiveness.

### 4.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the Site Cover System, and all affected Site media identified below. Components of the Monitoring Plan are:

- Sampling and analysis of all appropriate media (e.g., groundwater);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards; and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

Monitoring of the performance of the remedy will be conducted for the periods specified for each matrix listed in table below and are explained in further detail in the following sections.

Monitoring Program	Frequency	Matrix	Analysis
Site Cover System and Site-Wide Inspection	Annually. First inspection no more than 16 months after issuance of the COC.	Soil	Visual inspection of all cover system components
Groundwater	Quarterly for seven quarters following issuance of the COC	Groundwater	VOCs (USEPA Method 8260) for NYSDEC Target Compound List compounds
SSDS and SVE Wells Detailed Operation Inspection	Monthly	Soil Vapor	Visual Inspection of System Components, Vacuum, Temperature, and Condensate
SSDS and SVE Wells System Status	Remote alarm tied into the SSDS and triggered when SSDS is shut down	Soil Vapor	Visual inspection of alarm to determine operation status

If at any time during the reporting period the Volunteer identifies a failure of one or more of the ECs or non-compliance with one or more of the ICs, the remedial party must notify NYSDEC and implement corrective measures, in accordance with a Corrective Measures Work Plan (CMWP) submitted to and approved by NYSDEC and provide a periodic certification of the ICs/ECs.

### 4.2 Site-Wide Inspection

Site-wide inspections are to be performed once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, a Site



Inspection Checklist will be completed as provided in the SMP. The Checklist will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of all ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that Site records are up to date.

On March 12, 2019, Roux performed a Site-wide inspection to meet the requirements for this reporting period. The completed Site Inspection Checklist is provided in Appendix D. This inspection determined that all Site Cover system elements described herein were observed to be performing as designed during the reporting period of the PRR and are protective of human health and the environment. The SSDS blower units were observed to be operating properly, however, the lightbulb on the “pump running” indicator light was burnt out on both blowers. Marcus Garvey Preservation LLC will have these lightbulbs replaced within one month of the date of this PRR. Photographs taken during the Site-wide inspection are provided in the Photo Log included in Appendix E.

### 4.3 Remedial System Monitoring

Monitoring of the SSDS and SVE wells will be performed on a routine basis, as identified in Table 4.3 – SMP Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections may take place when a suspected failure of the SSDS and SVE wells has been reported or an emergency occurs that is deemed likely to affect the operation of the system. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the O&M Plan discussed in following sections. SSDS and SVE wells components to be monitored include, but are not limited to, the components included in the Table 4.3 below.

**Table 4.3 – SMP Remedial System Monitoring Requirements and Schedule**

System Components	Monitoring Parameter	Operating Range	Monitoring Schedule
SSDS A (Southern Side of the Building)	Vacuum/pressure readings at the blower	-5 to -25 in. w.c. / 10 to 30 in.w.c.	Monthly
	Vacuum readings at SVMPs: SVMP-A2 through SVMP-A5 (as applicable)	Equal to or greater than -0.004 in. w.c.	Monthly
	Visual inspections of the SSDS mechanical and above grade piping components	N/A	Monthly

**Table 4.3 – SMP Remedial System Monitoring Requirements and Schedule**

System Components	Monitoring Parameter	Operating Range	Monitoring Schedule
SSDS B and SVE Wells (Northern Side of the Building)	Vacuum/pressure readings at the blower	-5 to -40 in. w.c. / 10 to 30 in.w.c.	Monthly
	Vacuum readings at SVMPs: SVMP-B1 through SVMP-B5 (as applicable)	Equal to or greater than -0.004 in. w.c.	Monthly
	Visual inspections of the SSDS mechanical and above grade piping components	N/A	Monthly
	SVE Wells SVE-1 and SVE-2 are open	Open or closed	Monthly

SSDS and SVE well monitoring has been performed in accordance with the above table. A summary of the monitoring performed during the reporting period is included in Section 5.0.

#### 4.4 Post-Remediation Groundwater Monitoring and Sampling

The SMP required that samples shall be collected from the three on-Site and four off-Site monitoring wells on a routine basis. Groundwater sampling locations, required analytical parameters, and sampling schedule are provided in Table 4.4 – SMP Remedial System Sampling Requirements and Schedule below. In addition to the analytical parameters, observations of field parameters (e.g. KMnO4 presence, dissolved oxygen, oxidation-reduction potential, etc.) are collected and recorded in a field book and associated groundwater sampling logs as provided in the SMP. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

**Table 4.4 – SMP Post-Remediation Sampling Requirements and Schedule**

Sampling Location	Analytical Parameters				Schedule
	VOCs (EPA Method 624)				
MW-1, MW-2, MW-3, MW-5S, MW-6S, MW-8, MW-9	X				Seven quarterly rounds after issuance of COC

*NYSDEC-Approved Modification to Groundwater Sampling Plan, November 21, 2017*

To date, there has been one modification to the groundwater monitoring and sampling schedule that the NYSDEC approved. Due to low to non-detect concentrations of the constituents of concern, on November 21, 2017, NYSDEC approved the permanent removal of the upgradient monitoring well MW-6S from the long-term monitoring network and agreed that wells MW-3 and MW-5S, did not require sampling during the fourth quarter 2017 sampling round. Roux resumed sampling these wells in the first quarter of 2018.

### Groundwater Sampling Activities

All groundwater monitoring and sampling has been performed in accordance with the SMP and approved modifications. Roux respectfully requested in the May 2018 PRR that the groundwater sampling be terminated due to low to non-detect concentrations but did not receive a determination from NYSDEC after several follow-up calls and emails. Roux collected additional groundwater samples in December 2018 and submitted a summary letter to NYSCDEC upon completion.

To date, seven post-remediation sampling rounds have been completed (six of which were completed after the issuance of the Site COC) on behalf of the Volunteer. Table 1 shows the results of historic groundwater samples collected on August 20, 2014 (reported in the Roux January 2016 RIR/RAWP), baseline sampling on July 14, 2016, and all post-remediation sampling events to date. Plate 1 presents the sample results over time. Plate 1 includes only those parameters with at least one exceedance of AWQSGVs contained in a respective well. Groundwater sampling event reports were submitted to NYSDEC after each sampling event and all sampling events after the COC was issued are included in Appendix A. Data Usability Summary Reports (DUSRs) prepared by a party independent from the laboratory performing analysis for all samples. DUSRs for samples collected from July 2016 through the first quarter of 2018 are included in Appendix A and the DUSR for the fourth quarter of 2018 is currently being completed.

### Trends in On-Site Monitoring Wells

The constituents of concern TCE and 1,2-DCE were not detected above AWQSGVs at any of the three on-Site monitoring wells with except during the August 2014 sampling event. For PCE, samples from the on-Site monitoring wells have exhibited over a 99% reduction in PCE when compared to their highest concentrations (2014 samples) for the last four consecutive sampling rounds (dating back to August 2017). For reference, the highest concentration of PCE in on-Site monitoring wells was detected on August 2014 at 7,700 parts per billion (ppb) from the sample taken from MW-2. Results from MW-2 from the December 2018 sampling event show that the PCE concentration was 8.1 ppb, which is only slightly above the NYSDEC AWQSGV of 5 ppb. At well MW-1, the concentration of PCE was detected at 3,200 ppb in August 2014 and PCE was detected at 21 ppb in well MW-1 in December 2018. MW-3 has been non-detect or below AWQSGVs for PCE for all post-injection samples. Graphs showing concentrations for constituents of concern over time are included in Figures 3 through 5.

### Trends in Off-Site Monitoring Wells

PCE was the only constituent of concern that has been detected above AWQGVs in off-Site monitoring wells. As seen on Table 1 and Plate 1, MW-5S was non-detect for all VOCs (including PCE) in groundwater for six consecutive rounds (with the NYSDEC's approval, MW-5S was not sampled in December 2017). MW-8 is the off-Site well located closest to where *in situ* injections were completed at the Site. PCE during the December 2018 sampling event at MW-8 was detected at 17 ppb, which corresponds to a greater than an 87% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was detected at 14 ppb during the December 2018 sampling event, which is below the PCE concentration detected during the July 2016 baseline sampling (20 ppb). As discussed in the quarterly groundwater sampling report submissions, significant influence was not expected at MW-9 due to the distance of MW-9 from the injections area, however, concentrations remain low.

## 4.5 Monitoring and Sampling Plan Conclusions and Recommendations

As described above, NYSDEC previously approved a modification to the Site groundwater monitoring and sampling plan. Post-remediation groundwater samples collected demonstrate that concentrations of constituents of concern in on-Site monitoring wells have exhibited reductions of at least 96% in all post-remediation samples beginning in August 2016 (minimum of six sampling rounds) when compared to their highest respective concentrations detected. Concentrations of PCE, the only compound that ever exceeded AWQSGVs in any off-Site well, remain low in downgradient off-Site wells MW-8 and MW-9. Due to the consistently low to non-detect concentrations of the constituents of concern in groundwater monitoring wells on-Site and off-Site (Figures 3 through 5), the Volunteer respectfully requests that the Site groundwater sampling program be terminated at this time.

## 5. Operation and Maintenance Compliance Report

### 5.1 General

The O&M Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. The O&M Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SSDS and SVE systems;
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS and SVE systems are operated and maintained.

As mentioned in Section 4.3, routine maintenance activities are required monthly by the SMP and recorded on the SSDS O&M forms outlined in the SMP. The routine maintenance activities include visual inspections, operating data collection and general maintenance. Visual inspection is the routine part of the SSDS and SVE well operator's activities. The system operator will note any conditions which present a potential hazard or could cause future system shutdown. Special attention should be given to any unusual or excessive noise or vibrations from the piping and blower. Specific routine maintenance tasks are outlined below:

- Inspect control panel and warning lights/alarms;
- Inspect all above slab blower piping for leaks and confirm operation of appropriate valves (i.e., dilution valve, pressure relief valve);
- Inspect vacuum/pressure gauges for proper operation;
- Check and clean air filter on each moisture knockout tank; and
- Check for the presence of and remove water in each knockout tank.

Non-routine equipment maintenance is likely to occur and consists of maintenance activities that will be performed with less frequency than the routine maintenance (i.e., semi-annually) on several system components. Specific non-routine maintenance tasks are outlined below:

- Inspect and test alarms;
- Check float switch in each knockout tank for proper operation;
- Replacement of vacuum/pressure gauges; and
- Change bearings on blowers after 15,000 hours of operation.

### 5.2 SSDS Operation Monitoring

All equipment maintenance and inspections were performed in accordance with the SMP. Specific routine maintenance tasks outlined above were recorded monthly on the SSDS O&M logs. All SSDS O&M logs that were completed during the reporting period are provided in chronological order in Appendix F. Overall, O&M activities described herein determined that the O&M Plan was carried out as designed during the reporting period of the PRR and it is protective of human health and the environment.

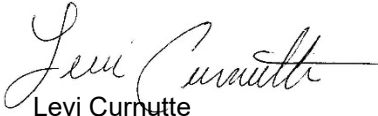
## 6. Overall PRR Conclusions and Recommendations

Based on the information and data provided herein, the ICs and ECs are performing as designed, are effective, and are compliant with the specifications described in the SMP. Only one recommended change to the Site monitoring and sampling plan is requested at this time:

- Due to the consistently low to non-detect concentrations of the constituents of concern in groundwater monitoring wells across the Site and off-Site, the Volunteer respectfully requests that the Site groundwater sampling program be terminated at this time. We appreciate the Department's consideration.

Respectfully submitted,

**ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.**



Levi Curnutte  
Project Scientist



Noelle Clarke, P.E.  
Principal Engineer

**Periodic Review Report**  
***650 Rockaway Avenue, Brooklyn, New York***

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**TABLE**

1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:				
				N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units					
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	75 UD	3.8 U	3 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	620 RV	500 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
Acetone	--	50	µg/L	250 UD	12 U	10 U	4.2 J	2.6 J
Acrylonitrile	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U
Benzene	1	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Bromoform	--	50	µg/L	100 UD	5 U	4 U	2 U	2 U	
Bromomethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Carbon Disulfide	--	60	µg/L	250 UD	12 U	10 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	120 UD	6.4	6.8	4.7	2.5 U	
Chloromethane	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	120 UD	6.2 UJV	5 UJV	2.5 UJV	2.5 U	
N-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
N-Propylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	
Toluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	
Trichlorofluoromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	
Xylenes	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	FD	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	NA	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	250 RV	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018	12/4/2018
				Normal or Field Duplicate:					
				N	N	N	N	FD	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Bromoform	--	50	µg/L	2 U	2 U	2 UJV	2 U	2 UJV	2.0 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	--	µg/L	78	31	16	18	14	21
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation: MW-1					
				Sample Date: 06/13/2017 08/31/2017 12/07/2017 03/15/2018 03/15/2018 12/4/2018					
				Normal or Field Duplicate: N N N N FD N					
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.72	0.48 J	0.31 J	0.29 J	0.3 J	0.29 J
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 UJV	1 U	1 UJV	1 UJV	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,1,1,2,2-Tetrachloroethane	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	150 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	200 UD	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	100 UD	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	50 UD	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	25000 UD	250 RV	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
2-Chlorotoluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	500 UD	5 U	<b>200</b>	16	5.2	12	
Acrylonitrile	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Bromoform	--	50	µg/L	200 UD	2 U	2.1	2 U	2 U	2 U	1 J-V
Bromomethane	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Chlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	250 UD	2.5 U	2.1 J	2.5 U	2.5 U	2.5 U	0.97 J
Chloromethane	--	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Cymene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	500 UD	5 U	8.7	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	250 UD	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>	<b>11</b>	<b>11</b>	3.8
Toluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Trans-1,3-Dichloropropene	--	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	<b>110 D</b>	0.49 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	100 UD	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				12/07/2017	03/15/2018	12/4/2018	8/20/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:					
				N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	75 UD	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	100 UD	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 UJV
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	100 UD	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	50 UD	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	25 UD	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	100 UD	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 U	12000 UD	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	100 UD	2 U	2 U
Acetone	--	50	µg/L	5.9	6	5.0 U	250 UD	5 U	<b>58</b>
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				12/07/2017	03/15/2018	12/4/2018	8/20/2014	07/14/2016	08/18/2016
Normal or Field Duplicate:				N	N	N	N	N	N
Bromoform	--	50	µg/L	2 UJV	2 UJV	2.0 U	100 UD	2 U	1.6 J
Bromomethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U	2.5 UJV
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	0.79 J	120 UD	2.5 U	1.5 J
Chloromethane	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	250 UD	5 U	3.9 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 UJV	2.5 UJV
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 UJV
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 UJV
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	--	µg/L	5	5.3	8.1	2700 D	32	0.5 U
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				Sample Date:	12/07/2017	03/15/2018	12/4/2018	8/20/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	25 UD	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U	2.5 UJV	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	<b>28 D</b>	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	250 UD	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 UJV	1.0 U	50 UD	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	08/31/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	NA	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	250 RV	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.31 J

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
				02/28/2017	06/13/2017	08/31/2017	08/31/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:					
				N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 UJV	2 UJV	2.0 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.5 J
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	--	µg/L	4.2	2.8	3.3	3	2.3	3.1
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:					
				02/28/2017	06/13/2017	08/31/2017	08/31/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:					
				N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 UJV	1 U	1 UJV	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	8/19/2014	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	FD	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	2.0 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	2.0 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	0.50 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	2.0 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2.0 U	2.0 U	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5.0 U	5.0 U	1.6 J	5 U	5 U	5 U	11
Acrylonitrile	5	--	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	0.50 U	0.77	0.5 U	0.5 U	0.5 U	0.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				8/19/2014	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	FD	N	N	N
Bromoform	--	50	µg/L	2.0 U	2.0 U	2 U	2 U	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	<b>9.8</b>	2.6	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.54	0.54	1	0.82	0.25 J	0.5 U
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	8/19/2014	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	FD	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5.0 U	5.0 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1.0 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	0.50 U	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 U	250 U	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	7.2	3.4	1.8	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 UJV	1 UJV	1.0 U	1.0 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	4 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	4 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	2 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	4 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	500 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	10 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	4 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5 U	10 U	5 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	10 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	1	1.9	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Bromoform	--	50	µg/L	2 U	2 U	2 U	4 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	10 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	12	19	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.4 J	2 J	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	10 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	10 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.4 J	2 J	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	10 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	10 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	5 UJV	2.5 UJV	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Tetrachloroethylene (PCE)	5	--	µg/L	0.5 U	0.5 U	0.24 J	140	140	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 UJV	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	2.9	2.8	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	10 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 UJV	2 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
				Normal or Field Duplicate:	FD	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 UJV	2.5 UJV	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	1.9	0.5 U	0.5 U	0.5 U	0.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-8	MW-8	MW-8	MW-8	MW-8
				08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
Normal or Field Duplicate:				FD	N	N	N	N
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 UJV	2 UJV
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	19	1.1 J	2.5 U	2.5 U	0.78 J
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Cis-1,2-Dichloroethylene	5	--	µg/L	2 J	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2 J	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
T-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Tetrachloroethylene (PCE)	5	--	µg/L	140	36	22	20	20
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
				Normal or Field Duplicate:	FD	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV
Trichloroethylene (TCE)	5	--	µg/L	2.8	0.9	0.49 J	0.52	0.52	0.52
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
				03/15/2018	12/4/2018	12/4/2018	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:					
				N	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1.0 U	1.0 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	0.50 U	0.50 U	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 U	250 U	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:	03/15/2018	12/4/2018	12/4/2018	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N	N
Bromoform	--	50	µg/L	2 UJV	2.0 U	2.0 U	2 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	0.96 J	2.5 U	2.5 U	2.5 U	2.5 U	0.84 J	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	5	--	µg/L	17	17	18	20	24	35	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:					
				03/15/2018	12/4/2018	12/4/2018	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:					
				N	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.49 J	0.40 J	0.38 J	0.61	0.79	0.75
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 UJV	1.0 U	1.0 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Bromoform	--	50	µg/L	2 U	2 UJV	2 UJV	2 UJV	2.0 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	5	--	µg/L	33	12	20	13	14	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.64	0.45 J	0.45 J	0.4 J	0.51	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 UJV	1.0 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

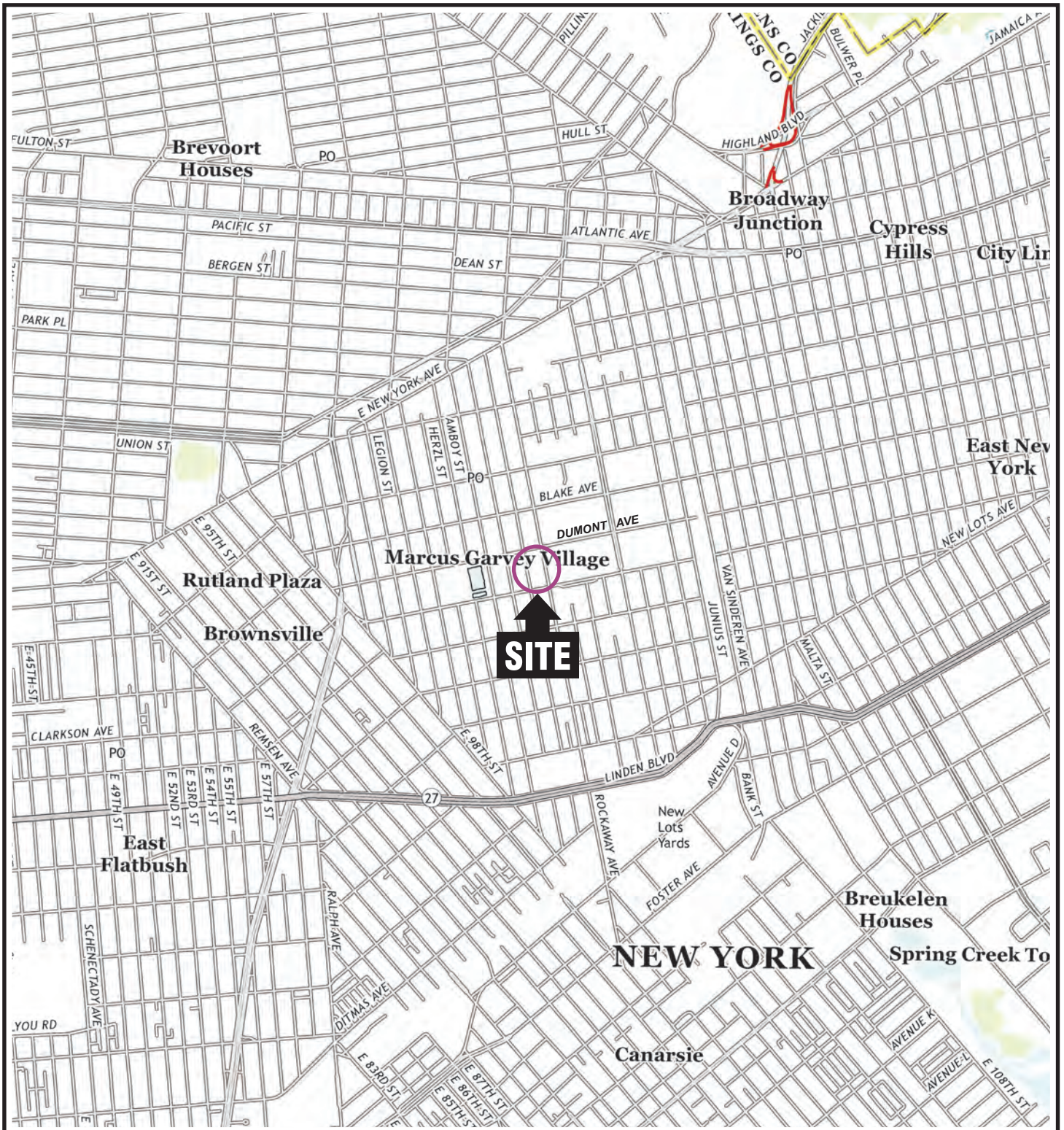
-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**FIGURES**

1. Site Location
2. As-Built Sub-Slab Depressurization System Plan
3. PCE Concentrations in Groundwater
4. TCE Concentrations in Groundwater
5. 1,2-DCE Concentrations in Groundwater





QUADRANGLE LOCATION



SOURCE:  
USGS; 2013, Brooklyn, NY  
7.5 Minute Topographic Quadrangle



Title:

**SITE LOCATION MAP**

MARCUS GARVEY APARTMENTS  
650 ROCKAWAY AVENUE, BROOKLYN, NEW YORK

Prepared for:

C+C APARTMENT MANAGERS LLC



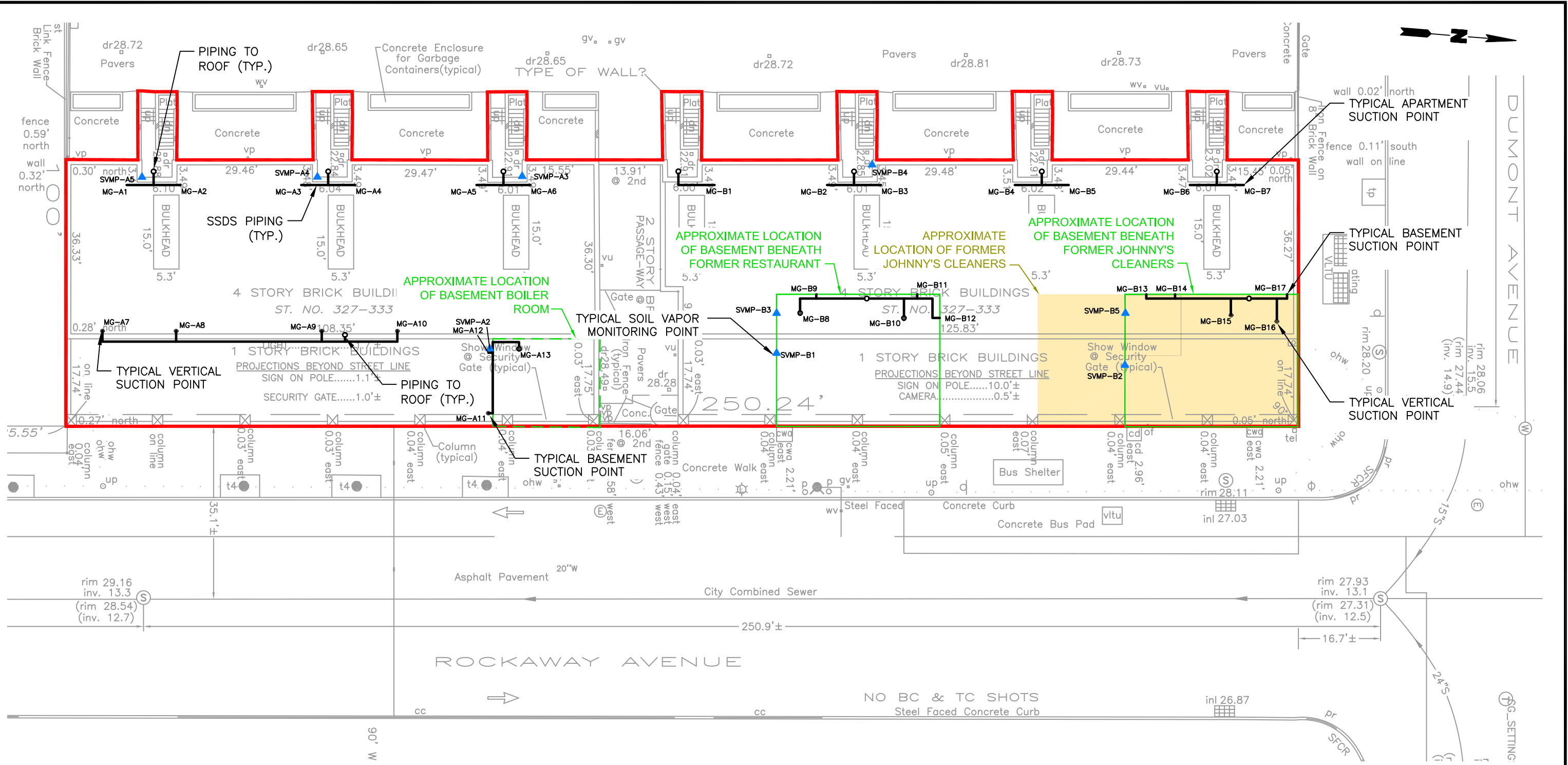
Compiled by: L.C.	Date: 03JUN19
Prepared by: B.H.C.	Scale: AS SHOWN
Project Mgr.: L.C.	Project No.: 2158.0002Y004
File: 2158.0002Y162.01.CDR	

FIGURE

**1**



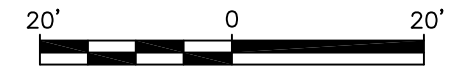
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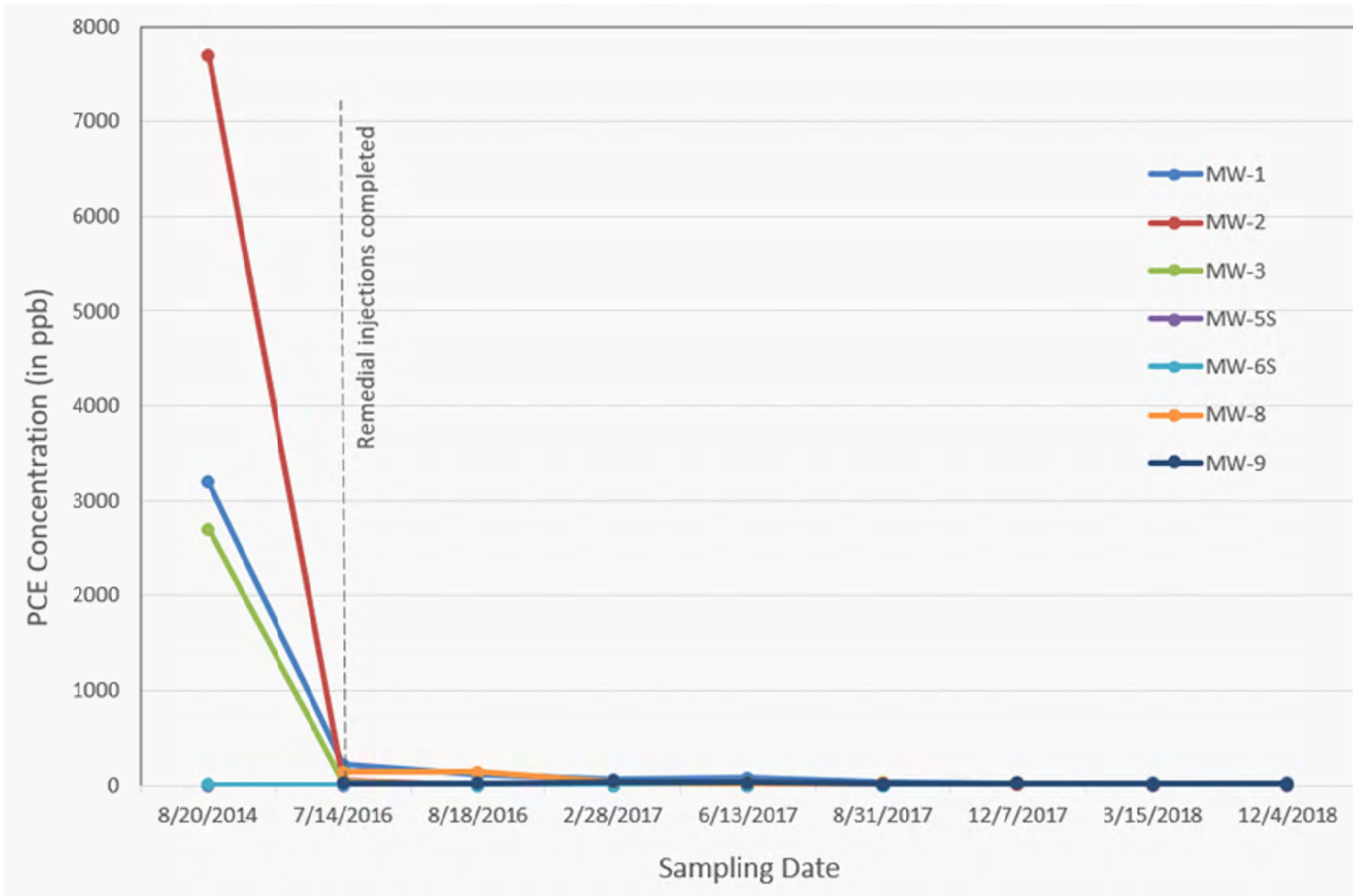


LEGEND	
	APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS
	BCP SITE /ENVIRONMENTAL EASEMENT BOUNDARY
	APPROXIMATE LOCATION OF BASEMENT
	LOCATION AND DESIGNATION OF TYPICAL SOIL VAPOR MONITORING POINT

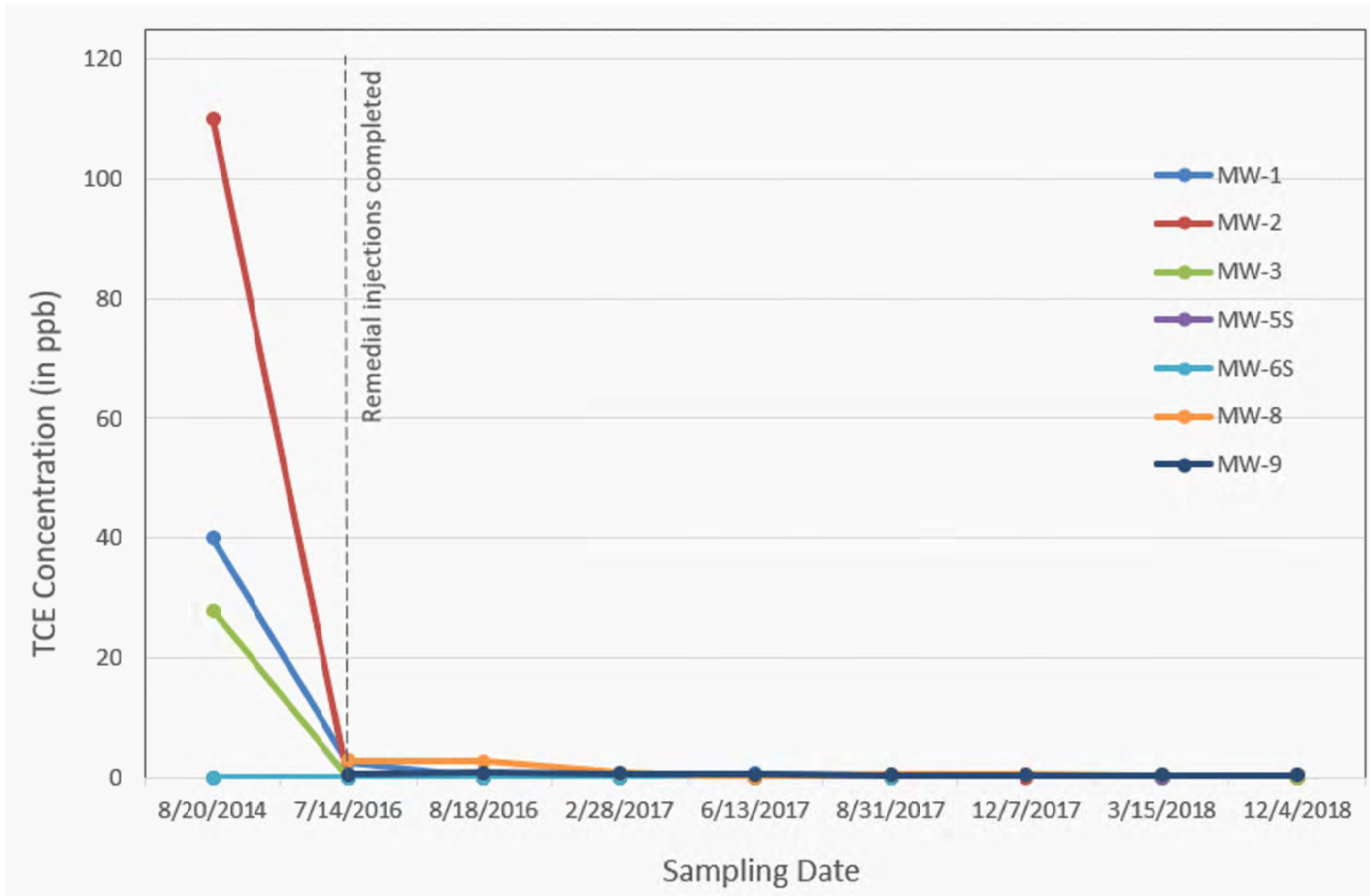
- NOTES**
1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1)
  2. NOT ALL SSDS PIPING IS SHOWN FOR CLARITY REASONS.
  3. SVMP-A1 IS NO LONGER BEING MONITORED AS OF JANUARY 2017.

Title:		
<b>AS-BUILT SUB-SLAB DEPRESSURIZATION SYSTEM PLAN</b>		
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVENUE, BROOKLYN, NEW YORK		
Prepared For:		
C+C APARTMENT MANAGERS LLC		
Compiled by: L.C.	Date: 03JUN19	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	<b>2</b>
Project Mgr: L.C.	Project: 2158.0002Y004	
File: 2158.0002Y162.02.DWG		

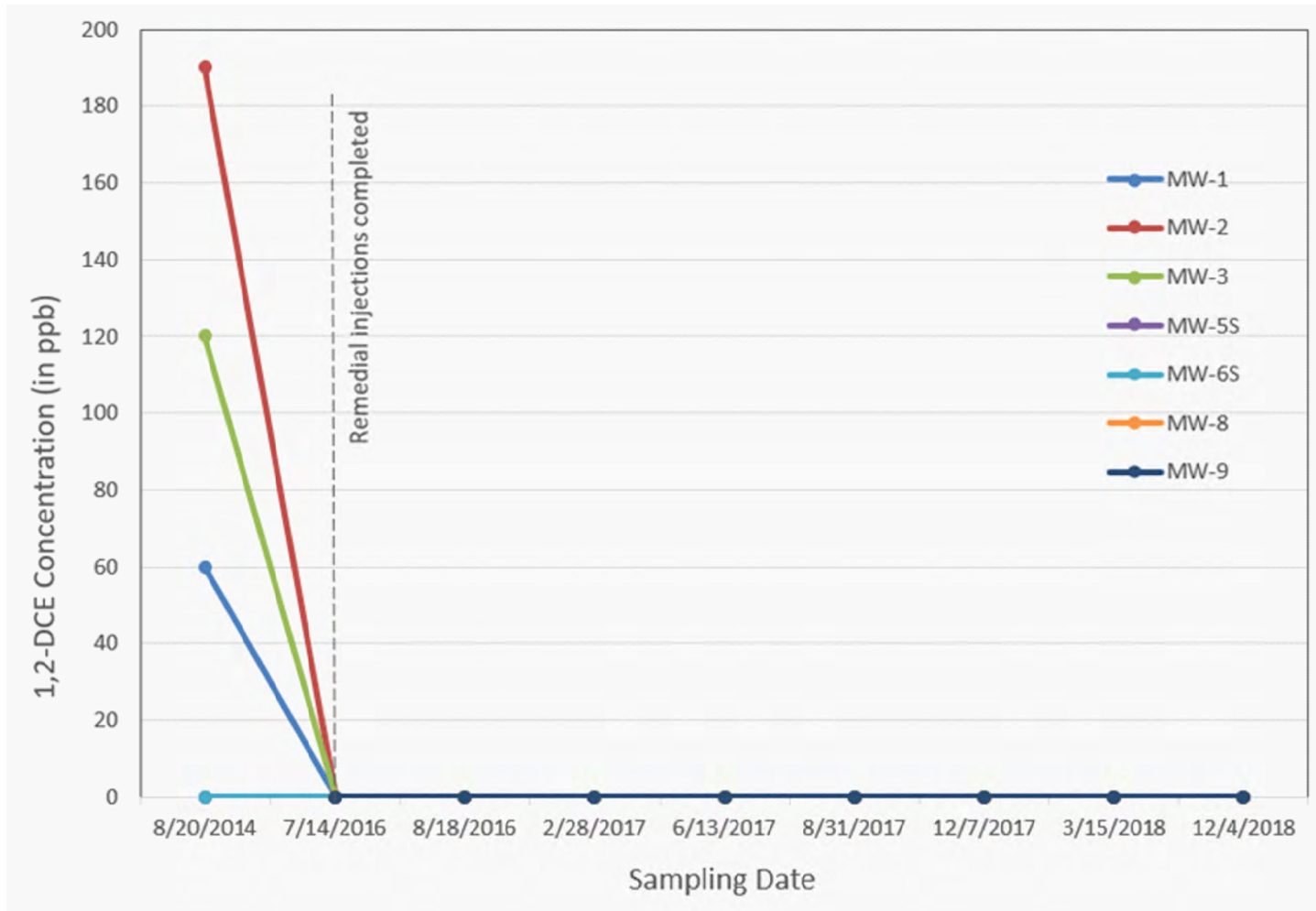





Title:			
<b>PCE CONCENTRATIONS IN GROUNDWATER</b>			
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVENUE, BROOKLYN, NEW YORK			
Prepared For:			
C+C APARTMENT MANAGERS LLC			
	Compiled by: L.C.	Date: 03JUN19	FIGURE <b>3</b>
	Prepared by: B.H.C.	Scale: AS SHOWN	
	Project Mgr: L.C.	Project: 2158.0002Y004	
	File: 2158.0002Y162.02.DWG		



Title:			
<b>TCE CONCENTRATIONS IN GROUNDWATER</b>			
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVENUE, BROOKLYN, NEW YORK			
Prepared For:			
C+C APARTMENT MANAGERS LLC			
	Compiled by: L.C.	Date: 03JUN19	FIGURE <b>4</b>
	Prepared by: B.H.C.	Scale: AS SHOWN	
	Project Mgr: L.C.	Project: 2158.0002Y004	
	File: 2158.0002Y162.02.DWG		



<p>Title: <b>1,2-DCE CONCENTRATIONS IN GROUNDWATER</b></p> <p>MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVENUE, BROOKLYN, NEW YORK</p>			
<p>Prepared For: C+C APARTMENT MANAGERS LLC</p>			
	Compiled by: L.C.	Date: 03JUN19	FIGURE <b>5</b>
	Prepared by: B.H.C.	Scale: AS SHOWN	
	Project Mgr: L.C.	Project: 2158.0002Y004	
	File: 2158.0002Y162.02.DWG		

**APPENDICES**

- A. Groundwater Monitoring Reports and DUSRs
- B. Site Cover System
- C. IC and EC Certification Form
- D. Annual Site Inspection Checklist
- E. Annual Inspection Photograph Log
- F. Completed Monthly SSDS O&M Logs



Groundwater Monitoring Reports and DUSRs

**REMEDIAL ENGINEERING, P.C.**  
**ENVIRONMENTAL ENGINEERS**

209 SHAFTER STREET  
ISLANDIA, NEW YORK 11749  
TEL: 631-232-2600  
FAX: 631 232-9898

March 31, 2017

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: February 28, 2017 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Associates, Inc. (Roux Associates) conducted quarterly groundwater sampling on behalf of Marcus Garvey Apartments LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs), primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis-1,2,-dichloroethene (1,2-DCE). The remedy for the Site included removal of source material soil and implementation of in-situ potassium permanganate injections completed in July and August 2016.

Groundwater sampling for volatile organic compounds (VOCs) was conducted on February 28, 2017 by Roux Associates at the seven monitoring wells that are part of the long-term Site monitoring network. On-Site groundwater monitoring wells MW-1, MW-2 and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9 are shown on Figure 1. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux Associates' January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and post-remediation sampling events in August 2016 and February 2017. The analytical report from Alpha Laboratories (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively.

Stephen G. Malsan, P.E.

March 31, 2017

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On February 28, 2017, the seven groundwater wells were successfully sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for VOCs. No on-Site or off-Site wells exceeded groundwater standards for either of the COCs TCE or 1,2 DCE in the February 2017 sampling round.

PCE Trends in On-Site Monitoring Wells

The trends in the PCE concentrations in on-Site monitoring wells with time are summarized below. The highest concentration of PCE was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW-2 during the RIR/RAWP. Results from the February 2017 sampling event show that the PCE concentration was 9.1 ppb, corresponding to a reduction of over 99% when compared to RIR/RAWP samples. At well MW-1, the concentration of PCE was detected at 3,200 ppb during the August 2014 RIR/RAWP sampling. PCE was detected at 62 ppb during the February 2017 sampling event corresponding to a greater than a 92% reduction. The highest PCE concentration at MW-3 was 2,700 ppb (August 2014). The February 2017 PCE groundwater concentration at MW-3 was 4.2 ppb, which is below the New York State Department of Environmental Conservation (NYSDEC) Ambient Water-Quality Standards and Guidance Values (AWQSGVs) of 5 ppb. This corresponds to a greater than 99 percent decrease at MW-3.

PCE Trends in Off-Site Monitoring Wells


MW-8 is the off-Site well located closest to where in-situ injections were completed at the Site. PCE at MW-8 was detected at 36 ppb, which corresponds to a greater than a 74% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was detected at 35 ppb, similar to the PCE concentration detected during baseline sampling (20 ppb). Due to the distance of MW-9 from the injections area, significant influence was not expected at this well.

In accordance with the SMP for the Site, quarterly sampling and submittal of groundwater sampling event summaries will be completed.

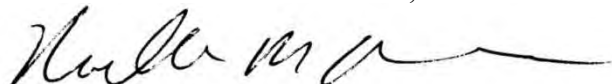
Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at 631-232-2600, if you have questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.

  
Levi Curnutte  
Staff Scientist

REMEDIAL ENGINEERING, P.C.

  
Noelle M. Clarke, P.E.  
Principal Engineer

Attachments

REMEDIAL ENGINEERING, P.C.

**February 28, 2017**  
**Quarterly Groundwater Sampling Event Summary**  
*Marcus Garvey Apartments — Site Number C224198*  
*650 Rockaway Avenue, Brooklyn, New York*

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**TABLE**

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-1	MW-1	MW-1	MW-1	MW-1
Normal (N) or Field Duplicate (FD):				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	75 UD	3.8 U	3 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	100 UD	5 U	4 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	50 UD	2.5 U	2 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	25 UD	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	12000 UD	620 U	500 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	250 UD	12 U	10 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	250 UD	12 U	10 U	4.2 J	2.6 J

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-1	MW-1	MW-1	MW-1	MW-1
Normal (N) or Field Duplicate (FD):				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				N	N	FD	N	N
Acrylonitrile	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U
Benzene	1	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U
Bromoform	--	50	UG/L	100 UD	5 U	4 U	2 U	2 U
Bromomethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	250 UD	12 U	10 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Chloroform	7	--	UG/L	120 UD	6.4	6.8	4.7	2.5 U
Chloromethane	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Cymene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	250 UD	12 U	10 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	250 UD	12 U	10 U	5 U	5 U
Methylene Chloride	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				Normal (N) or Field Duplicate (FD):	N	N	FD	N	N
N-Propylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Styrene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	
Toluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	NA	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	UG/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	
Trichlorofluoromethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	UG/L	50 UD	2.5 U	2 U	1 U	1 U	
Xylenes	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-2	MW-2	MW-2	MW-2	MW-3
Normal (N) or Field Duplicate (FD):				8/20/2014	7/14/2016	8/18/2016	02/28/2017	8/20/2014
				N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,1,1-Trichloroethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,1,2,2-Tetrachloroethane	5	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	25 UD
1,1,2-Trichloroethane	1	--	UG/L	150 UD	1.5 U	1.5 U	1.5 U	75 UD
1,1-Dichloroethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,1-Dichloroethene	5	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	25 UD
1,1-Dichloropropene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2,3-Trichlorobenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2,3-Trichloropropane	0.04	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2,4,5-Tetramethylbenzene	5	--	UG/L	200 UD	2 U	2 U	2 U	100 UD
1,2,4-Trichlorobenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2,4-Trimethylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	200 UD	2 U	2 U	2 U	100 UD
1,2-Dichlorobenzene	3	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,2-Dichloroethane	0.6	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	25 UD
1,2-Dichloropropane	1	--	UG/L	100 UD	1 U	1 U	1 U	50 UD
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,3-Dichlorobenzene	3	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,3-Dichloropropane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,3-Dichloropropene	0.4	--	UG/L	50 UD	NA	NA	NA	25 UD
1,4-Dichlorobenzene	3	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
1,4-Diethyl Benzene	--	--	UG/L	200 UD	2 U	2 U	2 U	100 UD
1,4-Dioxane (P-Dioxane)	--	--	UG/L	25000 UD	250 U	250 U	250 U	12000 UD
2,2-Dichloropropane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
2-Chlorotoluene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
2-Hexanone	--	50	UG/L	500 UD	5 U	5 U	5 U	250 UD
4-Chlorotoluene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	120 UD
4-Ethyltoluene	--	--	UG/L	200 UD	2 U	2 U	2 U	100 UD
Acetone	--	<b>50</b>	UG/L	500 UD	5 U	<b>200</b>	16	250 UD



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-3
				Sample Date:	8/20/2014	7/14/2016	8/18/2016	02/28/2017	8/20/2014
				Normal (N) or Field Duplicate (FD):	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Benzene	1	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Bromobenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Bromochloromethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Bromodichloromethane	--	50	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Bromoform	--	50	UG/L	200 UD	2 U	2.1	2 U	2 U	100 UD
Bromomethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Carbon Disulfide	--	60	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Carbon Tetrachloride	5	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Chlorobenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Chloroethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Chloroform	7	--	UG/L	250 UD	2.5 U	2.1 J	2.5 U	2.5 U	120 UD
Chloromethane	--	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Cis-1,2-Dichloroethylene	5	--	UG/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Cis-1,3-Dichloropropene	--	5	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Cymene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Dibromochloromethane	--	50	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Dibromomethane	5	--	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Dichlorodifluoromethane	5	--	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Dichloroethylenes	5	--	UG/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Diethyl Ether (Ethyl Ether)	--	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Ethylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Hexachlorobutadiene	0.5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Isopropylbenzene (Cumene)	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
m,p-Xylene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	500 UD	5 U	8.7	5 U	5 U	250 UD
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Methylene Chloride	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Naphthalene	--	10	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
N-Butylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-3
				Sample Date:	8/20/2014	7/14/2016	8/18/2016	02/28/2017	8/20/2014
				Normal (N) or Field Duplicate (FD):	N	N	N	N	N
N-Propylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Sec-Butylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Styrene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
T-Butylbenzene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Tert-Butyl Methyl Ether	--	10	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>	<b>2700 D</b>	
Toluene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Trans-1,3-Dichloropropene	--	--	UG/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	25 UD
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Trichloroethylene (TCE)	5	--	UG/L	<b>110 D</b>	0.49 J	0.5 U	0.5 U	0.5 U	<b>28 D</b>
Trichlorofluoromethane	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD
Vinyl Acetate	--	--	UG/L	500 UD	5 U	5 U	5 U	5 U	250 UD
Vinyl Chloride	2	--	UG/L	100 UD	1 U	1 U	1 U	1 U	50 UD
Xylenes	5	--	UG/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	120 UD

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-3	MW-3	MW-3	MW-5S	MW-5S DUP
Normal (N) or Field Duplicate (FD):				7/14/2016	8/18/2016	02/28/2017	8/19/2014	8/19/2014
				N	N	N	N	FD
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U	2 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U	2 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	UG/L	1 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	NA	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U	2 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2 U	2 U	2.0 U	2.0 U
Acetone	--	<b>50</b>	UG/L	5 U	<b>58</b>	5 U	5.0 U	5.0 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:				
				MW-3	MW-3	MW-3	MW-5S	MW-5S DUP
				Sample Date:				
				7/14/2016	8/18/2016	02/28/2017	8/19/2014	8/19/2014
				Normal (N) or Field Duplicate (FD):				
				N	N	N	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units					
Acrylonitrile	5	--	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Benzene	1	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromoform	--	50	UG/L	2 U	1.6 J	2 U	2.0 U	2.0 U
Bromomethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	UG/L	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Cymene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Dibromomethane	5	--	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	3.9 J	5 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:				
				MW-3	MW-3	MW-3	MW-5S	MW-5S DUP
				Sample Date:				
				7/14/2016	8/18/2016	02/28/2017	8/19/2014	8/19/2014
				Normal (N) or Field Duplicate (FD):				
				N	N	N	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units					
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>32</b>	0.5 U	4.2	0.54	0.54
Toluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U	0.5 U	NA	NA
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5 U	5 U	5.0 U	5.0 U
Vinyl Chloride	2	--	UG/L	1 U	1 U	1 U	1.0 U	1.0 U
Xylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
Normal (N) or Field Duplicate (FD):				7/14/2016	8/18/2016	02/28/2017	8/18/2014	7/14/2016	8/18/2016
				N	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U	2 U	2.0 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U	2 U	2.0 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	1 U	1 U	1.0 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	NA	0.50 U	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U	2 U	2.0 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2 U	2 U	2.0 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	1.6 J	5 U	5 U	5.0 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:					
				7/14/2016	8/18/2016	02/28/2017	8/18/2014	7/14/2016	8/18/2016
				Normal (N) or Field Duplicate (FD):					
				N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Benzene	1	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.77	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Bromoform	--	50	UG/L	2 U	2 U	2 U	2.0 U	2 U	2 U
Bromomethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	UG/L	9.8	2.6	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Cymene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
Normal (N) or Field Duplicate (FD):				7/14/2016	8/18/2016	02/28/2017	8/18/2014	7/14/2016	8/18/2016
				N	N	N	N	N	N
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	1	0.82	0.25 J	<b>7.2</b>	3.4	1.8
Toluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5 U	5 U	5.0 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	1 U	1 U	1.0 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-6S	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:					
				02/28/2017	7/14/2016	8/18/2016	8/18/2016	02/28/2017	7/14/2016
				Normal (N) or Field Duplicate (FD):					
				N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	3 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	4 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	4 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	2 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	4 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	500 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	4 U	2 U	2 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	10 U	5 U	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-6S	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:					
				02/28/2017	7/14/2016	8/18/2016	8/18/2016	02/28/2017	7/14/2016
				Normal (N) or Field Duplicate (FD):					
				N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Benzene	1	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.5 U	1	1.9	1.9	0.5 U	0.5 U
Bromoform	--	50	UG/L	2 U	4 U	2 U	2 U	2 U	2 U
Bromomethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	UG/L	2.5 U	<b>12</b>	<b>19</b>	<b>19</b>	1.1 J	2.5 U
Chloromethane	--	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.4 J	2 J	2 J	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	2.5 U	2.4 J	2 J	2 J	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	10 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:	02/28/2017	7/14/2016	8/18/2016	8/18/2016	02/28/2017	7/14/2016
				Normal (N) or Field Duplicate (FD):	N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
N-Propylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	0.5 U	<b>140</b>	<b>140</b>	<b>140</b>	<b>36</b>	<b>20</b>	
Toluene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	2.9	2.8	2.8	0.9	0.61	
Trichlorofluoromethane	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	10 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	
Normal (N) or Field Duplicate (FD):				8/18/2016	02/28/2017
				N	N
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9
				Sample Date:	8/18/2016	02/28/2017
				Normal (N) or Field Duplicate (FD):	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units			
Acrylonitrile	5	--	UG/L	5 U	5 U	
Benzene	1	--	UG/L	0.5 U	0.5 U	
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	
Bromodichloromethane	--	50	UG/L	0.5 U	0.5 U	
Bromoform	--	50	UG/L	2 U	2 U	
Bromomethane	5	--	UG/L	0.71 J	2.5 U	
Carbon Disulfide	--	60	UG/L	5 U	5 U	
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	
Chloroethane	5	--	UG/L	2.5 U	2.5 U	
Chloroform	7	--	UG/L	2.5 U	0.84 J	
Chloromethane	--	--	UG/L	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	
Cymene	5	--	UG/L	2.5 U	2.5 U	
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	
Dibromomethane	5	--	UG/L	5 U	5 U	
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	
Naphthalene	--	10	UG/L	2.5 U	2.5 U	
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	
Normal (N) or Field Duplicate (FD):				8/18/2016	02/28/2017
				N	N
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>24</b>	<b>35</b>
Toluene	5	--	UG/L	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.79	0.75
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

-- No NYSDEC AWQSGV available

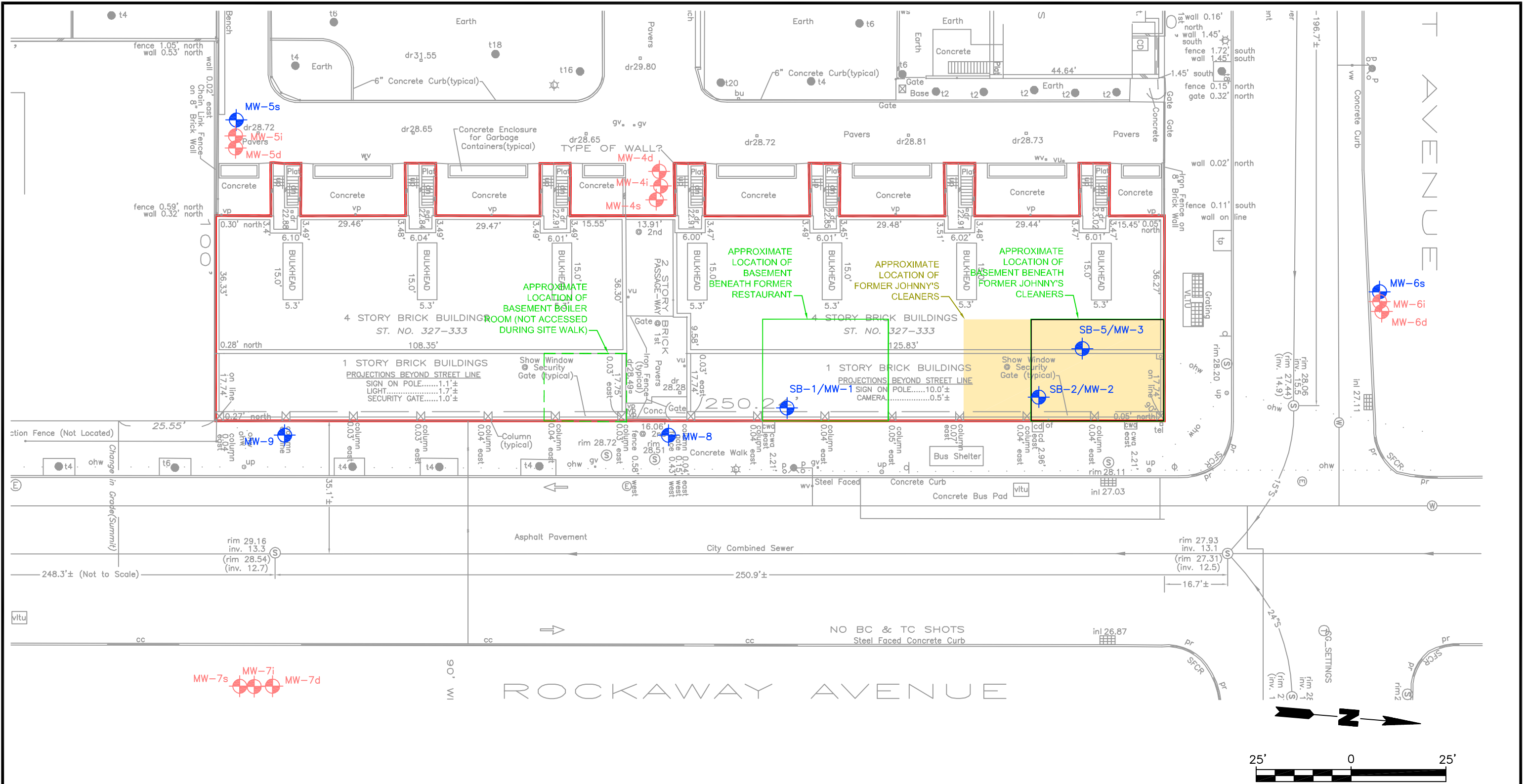
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**February 28, 2017**  
**Quarterly Groundwater Sampling Event Summary**  
***Marcus Garvey Apartments — Site Number C224198***  
***650 Rockaway Avenue, Brooklyn, New York***

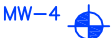




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**FIGURE**

V:\CAD\PROJECTS\2158\0002\153\2158.0002\153.01.DWG




**LEGEND**

-  LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
-  LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
-  BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
-  APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
-  APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

**NOTES**

1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
2. WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-6S, MW-8 AND MW-9.

Title: <b>SITE PLAN</b>			
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVE., BROOKLYN, NY			
Prepared For: C+C APARTMENT MANAGEMENT LLC			
	Compiled by: N.C.	Date: 10MAR17	FIGURE
ROUX ASSOCIATES, INC. <i>Environmental Consulting &amp; Management</i>	Prepared by: G.M.	Scale: AS SHOWN	<b>1</b>
	Project Mgr: N.C.	Project: 2158.0002Y004	
	File: 2158.0002Y153.01.DWG		



**February 28, 2017**  
**Quarterly Groundwater Sampling Event Summary**  
***Marcus Garvey Apartments — Site Number C224198***  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENTS**

1. Laboratory Analytical Report
2. Field Sampling Sheets

**February 28, 2017**  
**Quarterly Groundwater Sampling Event Summary**  
***Marcus Garvey Apartments — Site Number C224198***  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 1**

Laboratory Analytical Report



## ANALYTICAL REPORT

Lab Number:	L1706226
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	03/06/17

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1706226-01	MW-2	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:15	02/28/17
L1706226-02	MW-3	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:10	02/28/17
L1706226-03	MW-6S	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 08:35	02/28/17
L1706226-04	MW-8	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 07:55	02/28/17
L1706226-05	MW-9	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 07:45	02/28/17
L1706226-06	MW-5S	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 08:35	02/28/17
L1706226-07	MW-1	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:55	02/28/17
L1706226-08	TRIP BLANK	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/24/17 00:00	02/28/17
L1706226-09	FB-022817	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:00	02/28/17

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**Case Narrative (continued)**

Report Submission

The requested analyses were provided by the client.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 03/06/17

# ORGANICS

# VOLATILES



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-01  
 Client ID: MW-2  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 13:49  
 Analyst: PD

Date Collected: 02/28/17 10:15  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	9.1		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-01

Date Collected: 02/28/17 10:15

Client ID: MW-2

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	16		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY**Lab Number:** L1706226**Project Number:** 2158.0002Y004**Report Date:** 03/06/17**SAMPLE RESULTS**

Lab ID: L1706226-01

Date Collected: 02/28/17 10:15

Client ID: MW-2

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-02  
 Client ID: MW-3  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 14:21  
 Analyst: PD

Date Collected: 02/28/17 10:10  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	4.2		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-02

Date Collected: 02/28/17 10:10

Client ID: MW-3

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-02  
 Client ID: MW-3  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Date Collected: 02/28/17 10:10  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-03  
 Client ID: MW-6S  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 14:54  
 Analyst: NL

Date Collected: 02/28/17 08:35  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-03

Date Collected: 02/28/17 08:35

Client ID: MW-6S

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-03  
 Client ID: MW-6S  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Date Collected: 02/28/17 08:35  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-04  
 Client ID: MW-8  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 15:26  
 Analyst: NL

Date Collected: 02/28/17 07:55  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	1.1	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	36		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.90		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-04

Date Collected: 02/28/17 07:55

Client ID: MW-8

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

**Lab ID:** L1706226-04  
**Client ID:** MW-8  
**Sample Location:** 650 ROCKAWAY AV. BROOKLYN, NY

**Date Collected:** 02/28/17 07:55  
**Date Received:** 02/28/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	106		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-05  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 15:58  
 Analyst: NL

Date Collected: 02/28/17 07:45  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.84	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	35		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.75		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-05

Date Collected: 02/28/17 07:45

Client ID: MW-9

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-05  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Date Collected: 02/28/17 07:45  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	105		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-06  
 Client ID: MW-5S  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 16:30  
 Analyst: NL

Date Collected: 02/28/17 08:35  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.25	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-06

Date Collected: 02/28/17 08:35

Client ID: MW-5S

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-06  
 Client ID: MW-5S  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Date Collected: 02/28/17 08:35  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-07  
 Client ID: MW-1  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 17:01  
 Analyst: NL

Date Collected: 02/28/17 10:55  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	62		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.59		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-07

Date Collected: 02/28/17 10:55

Client ID: MW-1

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY**Lab Number:** L1706226**Project Number:** 2158.0002Y004**Report Date:** 03/06/17**SAMPLE RESULTS**

Lab ID: L1706226-07

Date Collected: 02/28/17 10:55

Client ID: MW-1

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-08  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 17:33  
 Analyst: NL

Date Collected: 02/24/17 00:00  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.21	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-08

Date Collected: 02/24/17 00:00

Client ID: TRIP BLANK

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-08  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Date Collected: 02/24/17 00:00  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	110		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**SAMPLE RESULTS**

Lab ID: L1706226-09  
 Client ID: FB-022817  
 Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/03/17 18:06  
 Analyst: NL

Date Collected: 02/28/17 10:00  
 Date Received: 02/28/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

## SAMPLE RESULTS

Lab ID: L1706226-09

Date Collected: 02/28/17 10:00

Client ID: FB-022817

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY**Lab Number:** L1706226**Project Number:** 2158.0002Y004**Report Date:** 03/06/17**SAMPLE RESULTS**

Lab ID: L1706226-09

Date Collected: 02/28/17 10:00

Client ID: FB-022817

Date Received: 02/28/17

Sample Location: 650 ROCKAWAY AV. BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	106		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/03/17 10:37  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG982745-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/03/17 10:37  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG982745-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/03/17 10:37  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG982745-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG982745-3 WG982745-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	99		99		70-130	0		20
Dibromochloromethane	110		120		63-130	9		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	120		120		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		100		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG982745-3 WG982745-4								
Chloromethane	100		100		64-130	0		20
Bromomethane	160	Q	150	Q	39-139	6		20
Vinyl chloride	110		110		55-140	0		20
Chloroethane	130		130		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Acrylonitrile	100		110		70-130	10		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	80		78		36-147	3		20
Acetone	100		100		58-148	0		20
Carbon disulfide	94		94		51-130	0		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG982745-3 WG982745-4								
2-Butanone	91		97		63-138	6		20
Vinyl acetate	84		86		70-130	2		20
4-Methyl-2-pentanone	91		93		59-130	2		20
2-Hexanone	86		86		57-130	0		20
Bromochloromethane	120		120		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	110		100		70-130	10		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	110		110		64-130	0		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		110		70-130	9		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	88		94		41-144	7		20
Hexachlorobutadiene	100		98		63-130	2		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	90		87		70-130	3		20
n-Propylbenzene	110		110		69-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG982745-3 WG982745-4								
1,2,3-Trichlorobenzene	95		91		70-130	4		20
1,2,4-Trichlorobenzene	97		94		70-130	3		20
1,3,5-Trimethylbenzene	120		110		64-130	9		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	110		106		56-162	4		20
p-Diethylbenzene	110		100		70-130	10		20
p-Ethyltoluene	120		110		70-130	9		20
1,2,4,5-Tetramethylbenzene	120		120		70-130	0		20
Ethyl ether	120		120		59-134	0		20
trans-1,4-Dichloro-2-butene	89		89		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	106		102		70-130
Dibromofluoromethane	102		104		70-130

Project Name: MARCUS GARVEY

Lab Number: L1706226

Project Number: 2158.0002Y004

Report Date: 03/06/17

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1706226-01A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-01B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-01C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-02A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-02B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-02C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-03A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-03B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-03C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-04A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-04B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-04C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-05A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-05B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-05C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-06A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-06B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-06C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-07A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-07B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-07C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-08A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-08B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-09A	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-09B	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1706226-09C	Vial HCl preserved	A	N/A	3.7	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

#### Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
  - D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
  - E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
  - G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
  - H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
  - I** - The lower value for the two columns has been reported due to obvious interference.
  - M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
  - NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
  - P** - The RPD between the results for the two columns exceeds the method-specified criteria.
  - Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
  - R** - Analytical results are from sample re-analysis.
  - RE** - Analytical results are from sample re-extraction.
  - S** - Analytical results are from modified screening analysis.
  - J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
  - ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1706226  
**Report Date:** 03/06/17

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.





**NEW YORK  
CHAIN OF  
CUSTODY**

Westborough, MA 01581  
8 Walkup Dr.  
TEL: 508-898-9220  
FAX: 508-898-9193

Mansfield, MA 02048  
320 Forbes Blvd  
TEL: 508-822-9300  
FAX: 508-822-3288

**Service Centers**

Mahwah, NJ 07430: 35 Whitney Rd, Suite 5  
Albany, NY 12205: 14 Walker Way  
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1

of 1

Date Rec'd  
in Lab

2/28/17

ALPHA Job #

L1706226

**Project Information**

Project Name: **MARCUS GARNEY**  
Project Location: **650 ROCKAWAY AV. BROOKLYN, NY**  
Project # **2158-00027004**

**Deliverables**

ASP-A      ASP-B  
 EQulS (1 File)      EQulS (4 File)  
 Other

**Billing Information**

Same as Client Info  
PO #

**Client Information**

Client: **ROUX ASSOCIATES**  
Address: **209 SHAFER ST.**  
**ISLANDIA, NY 11749**  
Phone: **631-232-2600**  
Fax: **631-232-9898**  
Email: **LCURNUTTE@ROUXINC.COM**

(Use Project name as Project #)   
Project Manager: **LEVI CURNUTTE**  
ALPHAQuote #:

**Regulatory Requirement**

NY TOGS      NY Part 375  
 AWQ Standards      NY CP-51  
 NY Restricted Use      Other  
 NY Unrestricted Use  
 NYC Sewer Discharge

**Disposal Site Information**

Please identify below location of applicable disposal facilities.  
Disposal Facility:  
 NJ      NY  
 Other:

**Turn-Around Time**

Standard      Due Date:  
Rush (only if pre approved)      # of Days:

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Please specify Metals or TAL.

**ANALYSIS**

TCL VOCs (8260)															

**Sample Filtration**

Done  
 Lab to do  
 Preservation  
 Lab to do

(Please Specify below)

Sample Specific Comments

T  
o  
t  
a  
l  
B  
o  
t  
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l  
e

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS																
		Date	Time																			
06226-01	MW-2	2-28-17	1015	GW	MS	X																
02	MW-3	2-28-17	1010	GW	AF	X																
03	MW-6 S	2-28-17	0835	GW	MS	X																
04	MW-8	2-28-17	0755	GW	MS	X																
05	MW-9	2-28-17	0745	GW	AF	X																
06	MW-5 S	2-28-17	0835	GW	AF	X																
07	MW-1	2-28-17	1055	GW	MS	X																
08	TRIP BLANK	2-24-17	-	TB	JP																	
09	FB-022817	2-28-17	1000	FB	AF																	

Preservative Code:  
A = None  
B = HCl  
C = HNO<sub>3</sub>  
D = H<sub>2</sub>SO<sub>4</sub>  
E = NaOH  
F = MeOH  
G = NaHSO<sub>4</sub>  
H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
K/E = Zn Ac/NaOH  
O = Other

Container Code  
P = Plastic  
A = Amber Glass  
V = Vial  
G = Glass  
B = Bacteria Cup  
C = Cube  
O = Other  
E = Encore  
D = BOD Bottle

Westboro: Certification No: MA935  
Mansfield: Certification No: MA015

Container Type

V

Preservative

B

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i> Roux	2/28/17 15:30	<i>[Signature]</i> Joan H...	2/28/17 1530
<i>[Signature]</i> ...	2/28/17 1700	<i>[Signature]</i> ...	2-28-17 1840
<i>[Signature]</i> ...	2-28-17 2300	<i>[Signature]</i> ...	2/28/17 2300



**February 28, 2017**  
**Quarterly Groundwater Sampling Event Summary**  
***Marcus Garvey Apartments — Site Number C224198***  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 2**

Field Sampling Sheets

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-1 Weather: 49°F, CLOUDY

Date: 2/28/2017 Purge Water Disposal: 55 gal drums

Sampled By: MICHAEL S. Well Diameter / Type: 1" PVC

Depth to Product (ft):                      Water Column (ft):                     

Depth to Water(ft): 12.88 Volume of Water in Well (gal):                     

Depth to Bottom (ft): 20.12 Volume of Water to Remove (gal): ~ 0.9 GAL

well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 1020 Purge Rate: 100 ml/min

End Purging: 1055 Volume of Water Removed (gal):                     

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: clear

Samples Collected:                      VOCs (3 vials / HCl)

Duplicate Sample:                      Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
1020	\	12.88	6.66	0.896	10.2	7.41	16.89	487
1023	\	12.88	6.66	0.889	6.9	7.41	16.92	482
1026	\	12.88	6.66	0.888	3.2	7.39	16.91	477
1029	\	12.88	6.66	0.892	2.6	7.35	16.94	472
1032	\	12.88	6.66	0.890	2.0	7.33	16.95	474
1035	\	12.88	6.66	0.889	1.8	7.30	16.96	489
1038	\	12.88	6.67	0.886	1.5	7.28	16.97	492
1041	\	12.88	6.67	0.885	1.5	7.26	16.98	500
1044	\	12.88	6.67	0.884	1.4	7.24	16.98	507
1047	\	12.88	6.67	0.884	1.5	7.21	16.99	511
1050	\	12.88	6.67	0.886	1.4	7.20	16.99	513

1055 sample time

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-2 Weather: overcast 49°

Date: 2/28/2017 Purge Water Disposal: 55 gal drums

Sampled By: MS Well Diameter / Type: 1 inch PVC

Depth to Product (ft): — Water Column (ft): —

Depth to Water (ft): 12.83 Volume of Water in Well (gal): —

Depth to Bottom (ft): 20.03 Volume of Water to Remove (gal): ~ 0.9 GAL

well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0940 Purge Rate: 100 mL/min

End Purging: 1015 Volume of Water Removed (gal): —

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Purple

Samples Collected: — VOCs (3 vials / HCl)

Duplicate Sample: NO Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity µS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0940	—	12.83	6.59	0.535	50.9	10.29	16.13	519
0943	—	12.83	6.60	0.540	25.6	9.78	16.21	535
0946	—	12.83	6.60	0.539	18.3	9.46	16.26	541
0949	—	12.83	6.61	0.535	9.0	8.89	16.31	550
0952	—	12.83	6.61	0.538	7.5	8.61	16.33	559
0955	—	12.83	6.61	0.541	6.0	8.46	16.34	563
0958	—	12.83	6.62	0.540	3.7	8.40	16.35	567
1001	—	12.83	6.62	0.547	2.2	8.23	16.36	575
1004	—	12.83	6.63	0.550	1.4	8.12	16.36	578
1007	—	12.83	6.63	0.553	1.0	8.06	16.35	579
1010	—	12.83	6.63	0.555	1.5	8.04	16.36	581

Sample Time: 1015



## Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-3 **Weather:** 48°F, CLOUDY  
**Date:** 2/28/2017 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** Alfredo F. **Well Diameter / Type:** 1" PVC  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 12.54 **Volume of Water in Well (gal)** \_\_\_\_\_  
**Depth to Bottom (ft):** 20.05 **Volume of Water to Remove (gal):** \_\_\_\_\_  

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

**Start Purging:** 0936 **Purge Rate:** 100 gal/min  
**End Purging:** 1006 **Volume of Water Removed (gal):** ~0.8 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** LIGHT BROWN AT PURGE START, TURBID CLEAR AFTER 10 MIN.  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)** \_\_\_\_\_  
 (analyses / no. bottles)  
**Duplicate Sample:** — **Laboratory :** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm, S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0939	<del>12.54</del>	12.54	6.61	0.395	58.2	6.84	16.27	162
0942	—	12.54	6.66	0.395	10.4	6.46	16.24	172
0945	—	12.54	6.67	0.396	58.3	6.35	16.26	174
0948	—	12.54	6.67	0.396	46.7	6.31	16.31	175
0951	—	12.54	6.67	0.397	39.2	6.27	16.35	175
0954	—	12.54	6.67	0.397	33.1	6.13	16.38	175
0957	—	12.54	6.67	0.397	29.3	6.02	16.40	176
1000	—	12.54	6.67	0.399	28.6	5.91	16.42	177
1003	—	12.54	6.67	0.399	27.2	5.88	16.44	178
1006	—	12.54	6.67	0.399	27.0	5.82	16.48	178

SAMPLE TIME: 1010

**Well Sampling Purge Log**

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-5 S **Weather:** 46°F, CLOUDY  
**Date:** 2/28/2017 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" PVC  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 21.98 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 30.00 **Volume of Water to Remove (gal):** \_\_\_\_\_  
 well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
**Start Purging:** 0807 **Purge Rate:** 100 mL/MIN  
**End Purging:** 0834 **Volume of Water Removed (gal):** ~0.8 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** CLEAR FROM START TO FINISH  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)** \_\_\_\_\_  
 (analyses / no. bottles)  
**Duplicate Sample:** — **Laboratory:** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0810	—	21.98	6.64	0.669	73.2	6.21	16.05	175
0813	—	21.98	6.64	0.668	66.8	6.17	15.73	177
0816	—	21.98	6.65	0.663	57.9	6.14	15.44	178
0819	—	21.98	6.67	0.659	54.0	6.11	15.31	179
0822	—	21.98	6.67	0.657	50.3	6.11	15.22	181
0825	—	21.98	6.67	0.655	48.1	6.10	15.13	183
0828	—	21.98	6.67	0.655	43.2	6.09	15.10	183
0831	—	21.98	6.67	0.654	42.7	6.08	15.09	184
0834	—	21.98	6.67	0.654	41.8	6.08	15.08	185

SAMPLE TIME : 0835



**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002 Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-65 Weather: 44 overcast  
 Date: 2/28/2017 Purge Water Disposal: 55 gal drums  
 Sampled By: MS Well Diameter / Type: 2 inch pvc  
 Depth to Product (ft): \_\_\_\_\_ Water Column (ft): \_\_\_\_\_  
 Depth to Water(ft): 21.46 Volume of Water in Well (gal): \_\_\_\_\_  
 Depth to Bottom (ft): 3000 Volume of Water to Remove (gal): \_\_\_\_\_  
 well diameter: 1 in (2 in) 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0800 Purge Rate: 100 ml/min  
 End Purging: 0835 Volume of Water Removed (gal): ~0.9 gal  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/ Comments: clear  
 Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles) \_\_\_\_\_  
 Duplicate Sample: NO Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
08:00	—	21.46	6.58	0.391	3.2	9.85	16.61	156
08:03	—	21.46	6.59	0.387	1.3	8.78	15.88	160
08:06	—	21.46	6.60	0.385	0.7	8.58	15.88	161
08:09	—	21.46	6.60	0.385	0.6	8.78	15.74	163
08:12	—	21.46	6.60	0.386	0.2	8.49	15.50	163
08:15	—	21.46	6.60	0.384	0.4	8.50	15.21	164
08:18	—	21.46	6.60	0.378	0.9	8.34	15.15	165
08:21	—	21.46	6.60	0.376	1.0	8.29	15.12	165
08:24	—	21.46	6.60	0.375	1.1	8.24	15.09	165
08:27	—	21.46	6.60	0.375	1.1	8.19	15.09	165
08:30	—	21.46	6.60	0.374	1.0	8.16	15.08	165

8:35 : sample time

Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: 14W-8 Weather: overcast 44°F

Date: 2/28/2017 Purge Water Disposal: 55 gal drums

Sampled By: MS Well Diameter / Type: 2 inch PVC

Depth to Product (ft): — Water Column (ft):           

Depth to Water(ft): 21.43 Volume of Water in Well (gal):           

Depth to Bottom (ft): 28.65 Volume of Water to Remove (gal):           

well diameter: 1 in 2 in 4 in 6 in 8 in

gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 07:18 Purge Rate: 100 mL/min

End Purging: 07:55 Volume of Water Removed (gal): ~0.9 GAL

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: clear

Samples Collected:            VOCs (3 vials / HCl)

(analyses / no. bottles)

Duplicate Sample: NO Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
07:20	—	21.43	6.67	0.849	61.0	11.06	15.71	148
07:23	—	21.43	6.67	0.833	57.5	10.91	15.31	150
07:26	—	21.43	6.67	0.827	26.0	10.29	15.07	151
07:29	—	21.43	6.65	0.826	16.5	10.19	15.01	152
07:32	—	21.43	6.65	0.829	15.8	10.09	14.65	152
07:35	—	21.43	6.64	0.822	16.4	9.92	14.20	153
07:38	—	21.43	6.64	0.817	15.2	9.73	14.13	153
07:41	—	21.43	6.64	0.814	15.5	9.64	14.07	153
07:44	—	21.43	6.63	0.811	12.9	9.38	14.09	153
07:47	—	21.43	6.63	0.807	12.3	9.24	14.17	153
07:50	—	21.43	6.63	0.806	12.7	9.09	14.22	152

sample time 07:55



Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-9 Weather: 45°F, cloudy  
 Date: 2/28/2017 Purge Water Disposal: 55 gal drums  
 Sampled By: Alfredo F. Well Diameter / Type: 2" PVC  
 Depth to Product (ft): - Water Column (ft): \_\_\_\_\_  
 Depth to Water(ft): 22.17 Volume of Water in Well (gal) \_\_\_\_\_  
 Depth to Bottom (ft): 29.19 Volume of Water to Remove (gal): \_\_\_\_\_  
 well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0713 Purge Rate: 100 ml/min  
 End Purging: 0743 Volume of Water Removed (gal): ~0-9 GAL  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/ Comments: CLEAR THROUGHOUT PURGE  
 Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles) \_\_\_\_\_  
 Duplicate Sample: - Laboratory : Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity ms/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0716	-	22.17	6.81	1.47	39.1	9.66	15.58	186
0719	-	22.17	6.80	1.43	37.3	9.09	15.74	188
0722	-	22.17	6.77	1.40	36.4	4.12	15.71	189
0725	-	22.17	6.74	1.36	31.9	3.93	15.66	187
0728	-	22.17	6.73	1.35	28.7	3.25	15.60	187
0731	-	22.17	6.71	1.34	26.5	2.83	15.53	185
0734	-	22.17	6.70	1.34	22.0	2.74	15.51	185
0737	-	22.17	6.70	1.34	15.3	2.61	15.50	184
0740	-	22.17	6.69	1.34	14.9	2.56	15.48	184
0743	-	22.17	6.69	1.34	14.6	2.49	15.47	184

SAMPLE TIME = 0745



**REMEDIAL ENGINEERING, P.C.**  
**ENVIRONMENTAL ENGINEERS**

209 SHAFTER STREET  
ISLANDIA, NEW YORK 11749  
TEL: 631-232-2600  
FAX: 631 232-9898

July 28, 2017

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: June 13, 2017 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Associates, Inc. and Remedial Engineering, P.C. (collectively referred to as Roux Associates) conducted quarterly groundwater sampling on behalf of Marcus Garvey Apartments LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs), primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis-1,2-dichloroethene (1,2-DCE). The remedy for the Site included removal of source material soil and implementation of *in situ* potassium permanganate injections completed in July and August 2016, respectively.

Groundwater sampling for volatile organic compounds (VOCs) was conducted on June 13, 2017 by Roux Associates at seven monitoring wells that are part of the long-term Site monitoring network. On-Site groundwater monitoring wells MW-1, MW-2, and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9 are shown on Figure 1. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux Associates' January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and the quarterly post-remediation sampling events. The analytical report from Alpha Laboratories (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively.

On June 13, 2017, the seven groundwater wells were successfully sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for VOCs. No on-Site or off-Site

Stephen G. Malsan, P.E.

July 28, 2017

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wells exceeded New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards and Guidance Values (AWQSGVs) for either of the COCs TCE or 1,2 DCE in the June 2017 sampling round. The trends in the PCE concentrations observed in on-Site and off-Site monitoring wells with time are summarized below.

#### PCE Trends in On-Site Monitoring Wells

The highest concentration of PCE in on-Site monitoring wells was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW-2. Results from MW-2 from the June 2017 sampling event show that the PCE concentration was 11 ppb, corresponding to a reduction of over 99%. At well MW-1, the concentration of PCE was detected at 3,200 ppb in August 2014. PCE was detected at 78 ppb in well MW-1 during the June 2017 sampling event corresponding to a greater than a 97% reduction. The highest PCE concentration at MW-3 was 2,700 ppb (August 2014). The June 2017 PCE groundwater concentration at MW-3 was 2.8 ppb, which is below the NYSDEC AWQSGVs of 5 ppb. This corresponds to a greater than 99 percent decrease at MW-3.

#### PCE Trends in Off-Site Monitoring Wells

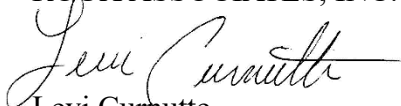
MW-8 is the off-Site well located closest to where *in situ* injections were completed at the Site. PCE at MW-8 was detected at 22 ppb, which corresponds to a greater than an 84% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was detected at 33 ppb, similar to the PCE concentration detected during baseline sampling (20 ppb). Due to the distance of MW-9 from the injections area, significant influence was not expected at this well. PCE was not detected at the two remaining off-Site wells, MW-5S and MW-6S.

As outlined in the SMP for the Site, Roux Associates will continue to perform quarterly sampling and submit subsequent groundwater sampling event notifications.

Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at 631-232-2600, if you have questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.



Levi Curnutte  
Project Scientist

REMEDIAL ENGINEERING, P.C.



Noelle M. Clarke, P.E.  
Principal Engineer

Attachments

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	UG/L	75 UD	3.8 U	3 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	UG/L	100 UD	5 U	4 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	UG/L	50 UD	2.5 U	2 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	UG/L	25 UD	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	UG/L	12000 UD	620 U	500 U	250 U	250 U	
2,2-Dichloropropane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
2-Hexanone	--	50	UG/L	250 UD	12 U	10 U	5 U	5 U	
4-Chlorotoluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	UG/L	100 UD	5 U	4 U	2 U	2 U	
Acetone	--	<b>50</b>	UG/L	250 UD	12 U	10 U	4.2 J	2.6 J	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Acrylonitrile	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Benzene	1	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Bromobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	UG/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U	
Bromoform	--	50	UG/L	100 UD	5 U	4 U	2 U	2 U	
Bromomethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	UG/L	250 UD	12 U	10 U	5 U	5 U	
Carbon Tetrachloride	5	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Chlorobenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroform	7	--	UG/L	120 UD	6.4	6.8	4.7	2.5 U	
Chloromethane	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	UG/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Cymene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Dibromomethane	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Dichlorodifluoromethane	5	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Dichloroethylenes	5	--	UG/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	250 UD	12 U	10 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Methylene Chloride	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Naphthalene	--	10	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
N-Propylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Styrene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	
Toluene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	NA	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	UG/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	UG/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	
Trichlorofluoromethane	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	UG/L	250 UD	12 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	UG/L	50 UD	2.5 U	2 U	1 U	1 U	
Xylenes	5	--	UG/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	150 UD	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	200 UD	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	200 UD	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	100 UD	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	50 UD	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	200 UD	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	25000 UD	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	500 UD	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	200 UD	2 U	2 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	500 UD	5 U	<b>200</b>	16	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	500 UD	5 U	5 U	5 U	
Benzene	1	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	
Bromobenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	
Bromoform	--	50	UG/L	2 U	200 UD	2 U	2.1	2 U	
Bromomethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	UG/L	5 U	500 UD	5 U	5 U	5 U	
Carbon Tetrachloride	5	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	
Chlorobenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	UG/L	2.5 U	250 UD	2.5 U	2.1 J	2.5 U	
Chloromethane	--	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	
Cymene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	
Dibromomethane	5	--	UG/L	5 U	500 UD	5 U	5 U	5 U	
Dichlorodifluoromethane	5	--	UG/L	5 U	500 UD	5 U	5 U	5 U	
Dichloroethylenes	5	--	UG/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	500 UD	5 U	8.7	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	500 UD	5 U	5 U	5 U	
Methylene Chloride	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
N-Propylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>78</b>	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>	
Toluene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.72	<b>110 D</b>	0.49 J	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	500 UD	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	100 UD	1 U	1 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-3	MW-3	MW-3	MW-3
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	75 UD	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	100 UD	2 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	100 UD	2 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	UG/L	1 U	50 UD	1 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	UG/L	NA	25 UD	NA	NA	NA	
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	UG/L	2 U	100 UD	2 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	12000 UD	250 U	250 U	250 U	
2,2-Dichloropropane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	UG/L	5 U	250 UD	5 U	5 U	5 U	
4-Chlorotoluene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	UG/L	2 U	100 UD	2 U	2 U	2 U	
Acetone	--	<b>50</b>	UG/L	5.2	250 UD	5 U	<b>58</b>	5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-3	MW-3	MW-3	MW-3
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Benzene	1	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	UG/L	2 U	100 UD	2 U	1.6 J	2 U	2 U
Bromomethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	UG/L	2.5 U	120 UD	2.5 U	1.5 J	2.5 U	2.5 U
Chloromethane	--	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	250 UD	5 U	3.9 J	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-3	MW-3	MW-3	MW-3
				Sample Date:	06/13/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
N-Propylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>11</b>	<b>2700 D</b>	<b>32</b>	0.5 U	4.2	
Toluene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	<b>28 D</b>	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	250 UD	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	50 UD	1 U	1 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-5S	MW-5S DUP	MW-5S	MW-5S
				Sample Date:	06/13/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	1.0 U	1.0 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	0.50 U	0.50 U	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2.0 U	2.0 U	2 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	5.0 U	5.0 U	1.6 J	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-5S	MW-5S DUP	MW-5S	MW-5S
				Sample Date:	06/13/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Benzene	1	--	UG/L	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.5 U	0.50 U	0.50 U	0.50 U	0.77	0.5 U
Bromoform	--	50	UG/L	2 U	2.0 U	2.0 U	2.0 U	2 U	2 U
Bromomethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	<b>9.8</b>	2.6
Chloromethane	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Cymene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-5S	MW-5S DUP	MW-5S	MW-5S
				Sample Date:	06/13/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	2.8	0.54	0.54	1	0.82	
Toluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	NA	NA	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5.0 U	5.0 U	5 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	1.0 U	1.0 U	1 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U	2.0 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U	2.0 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	1 U	1.0 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	0.50 U	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U	2.0 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5 U	5.0 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2 U	2.0 U	2 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	11	5.0 U	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Benzene	1	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Bromoform	--	50	UG/L	2 U	2 U	2.0 U	2 U	2 U	
Bromomethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Cymene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Dibromomethane	5	--	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	0.25 J	0.5 U	<b>7.2</b>	3.4	1.8	
Toluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U	NA	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5 U	5.0 U	5 U	5 U	
Vinyl Chloride	2	--	UG/L	1 U	1 U	1.0 U	1 U	1 U	
Xylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	FD
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	3 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U	4 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U	4 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	UG/L	1 U	1 U	2 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U	4 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	500 U	250 U	250 U	
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
2-Hexanone	--	50	UG/L	5 U	5 U	10 U	5 U	5 U	
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	UG/L	2 U	2 U	4 U	2 U	2 U	
Acetone	--	<b>50</b>	UG/L	5 U	5 U	10 U	5 U	5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	FD
Acrylonitrile	5	--	UG/L	5 U	5 U	10 U	5 U	5 U	
Benzene	1	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	UG/L	0.5 U	0.5 U	1	1.9	1.9	
Bromoform	--	50	UG/L	2 U	2 U	4 U	2 U	2 U	
Bromomethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	UG/L	5 U	5 U	10 U	5 U	5 U	
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Chloroethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	UG/L	2.5 U	2.5 U	<b>12</b>	<b>19</b>	<b>19</b>	
Chloromethane	--	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.4 J	2 J	2 J	
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Cymene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Dibromomethane	5	--	UG/L	5 U	5 U	10 U	5 U	5 U	
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	10 U	5 U	5 U	
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.4 J	2 J	2 J	
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5 U	10 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	10 U	5 U	5 U	
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Naphthalene	--	10	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	FD
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Styrene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	0.5 U	0.5 U	<b>140</b>	<b>140</b>	<b>140</b>	
Toluene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	UG/L	0.5 U	0.5 U	2.9	2.8	2.8	
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	UG/L	5 U	5 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	UG/L	1 U	1 U	2 U	1 U	1 U	
Xylenes	5	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	UG/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	--	<b>50</b>	UG/L	5 U	5 U	5 U	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	0.71 J	2.5 U	2.5 U
Carbon Disulfide	--	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	UG/L	1.1 J	2.5 U	2.5 U	2.5 U	2.5 U	0.84 J
Chloromethane	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:	02/28/2017	06/13/2017	7/14/2016	8/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
N-Propylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>36</b>	<b>22</b>	<b>20</b>	<b>24</b>	<b>35</b>	
Toluene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.9	0.49 J	0.61	0.79	0.75	
Trichlorofluoromethane	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9
				Sample Date:	06/13/2017
				Normal or Field Duplicate:	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units		
1,1,1,2-Tetrachloroethane	5	--	UG/L	2.5 U	
1,1,1-Trichloroethane	5	--	UG/L	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	UG/L	0.5 U	
1,1,2-Trichloroethane	1	--	UG/L	1.5 U	
1,1-Dichloroethane	5	--	UG/L	2.5 U	
1,1-Dichloroethene	5	--	UG/L	0.5 U	
1,1-Dichloropropene	5	--	UG/L	2.5 U	
1,2,3-Trichlorobenzene	5	--	UG/L	2.5 U	
1,2,3-Trichloropropane	0.04	--	UG/L	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	UG/L	2 U	
1,2,4-Trichlorobenzene	5	--	UG/L	2.5 U	
1,2,4-Trimethylbenzene	5	--	UG/L	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	UG/L	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	UG/L	2 U	
1,2-Dichlorobenzene	3	--	UG/L	2.5 U	
1,2-Dichloroethane	0.6	--	UG/L	0.5 U	
1,2-Dichloropropane	1	--	UG/L	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	UG/L	2.5 U	
1,3-Dichlorobenzene	3	--	UG/L	2.5 U	
1,3-Dichloropropane	5	--	UG/L	2.5 U	
1,3-Dichloropropene	0.4	--	UG/L	NA	
1,4-Dichlorobenzene	3	--	UG/L	2.5 U	
1,4-Diethyl Benzene	--	--	UG/L	2 U	
1,4-Dioxane (P-Dioxane)	--	--	UG/L	250 U	
2,2-Dichloropropane	5	--	UG/L	2.5 U	
2-Chlorotoluene	5	--	UG/L	2.5 U	
2-Hexanone	--	50	UG/L	5 U	
4-Chlorotoluene	5	--	UG/L	2.5 U	
4-Ethyltoluene	--	--	UG/L	2 U	
Acetone	--	<b>50</b>	UG/L	5 U	



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9
				Sample Date:	06/13/2017
				Normal or Field Duplicate:	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units		
Acrylonitrile	5	--	UG/L		5 U
Benzene	1	--	UG/L		0.5 U
Bromobenzene	5	--	UG/L		2.5 U
Bromochloromethane	5	--	UG/L		2.5 U
Bromodichloromethane	--	50	UG/L		0.5 U
Bromoform	--	50	UG/L		2 U
Bromomethane	5	--	UG/L		2.5 U
Carbon Disulfide	--	60	UG/L		5 U
Carbon Tetrachloride	5	--	UG/L		0.5 U
Chlorobenzene	5	--	UG/L		2.5 U
Chloroethane	5	--	UG/L		2.5 U
Chloroform	7	--	UG/L		2.5 U
Chloromethane	--	--	UG/L		2.5 U
Cis-1,2-Dichloroethylene	5	--	UG/L		2.5 U
Cis-1,3-Dichloropropene	--	5	UG/L		0.5 U
Cymene	5	--	UG/L		2.5 U
Dibromochloromethane	--	50	UG/L		0.5 U
Dibromomethane	5	--	UG/L		5 U
Dichlorodifluoromethane	5	--	UG/L		5 U
Dichloroethylenes	5	--	UG/L		2.5 U
Diethyl Ether (Ethyl Ether)	--	--	UG/L		2.5 U
Ethylbenzene	5	--	UG/L		2.5 U
Hexachlorobutadiene	0.5	--	UG/L		2.5 U
Isopropylbenzene (Cumene)	5	--	UG/L		2.5 U
m,p-Xylene	5	--	UG/L		2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	UG/L		5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	UG/L		5 U
Methylene Chloride	5	--	UG/L		2.5 U
Naphthalene	--	10	UG/L		2.5 U
N-Butylbenzene	5	--	UG/L		2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:
				MW-9
				Sample Date:
				06/13/2017
				Normal or Field Duplicate:
				N
N-Propylbenzene	5	--	UG/L	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	UG/L	2.5 U
Sec-Butylbenzene	5	--	UG/L	2.5 U
Styrene	5	--	UG/L	2.5 U
T-Butylbenzene	5	--	UG/L	2.5 U
Tert-Butyl Methyl Ether	--	10	UG/L	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	UG/L	<b>33</b>
Toluene	5	--	UG/L	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	UG/L	0.5 U
Trans-1,2-Dichloroethene	5	--	UG/L	2.5 U
Trans-1,3-Dichloropropene	--	--	UG/L	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	UG/L	2.5 U
Trichloroethylene (TCE)	5	--	UG/L	0.64
Trichlorofluoromethane	5	--	UG/L	2.5 U
Vinyl Acetate	--	--	UG/L	5 U
Vinyl Chloride	2	--	UG/L	1 U
Xylenes	5	--	UG/L	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

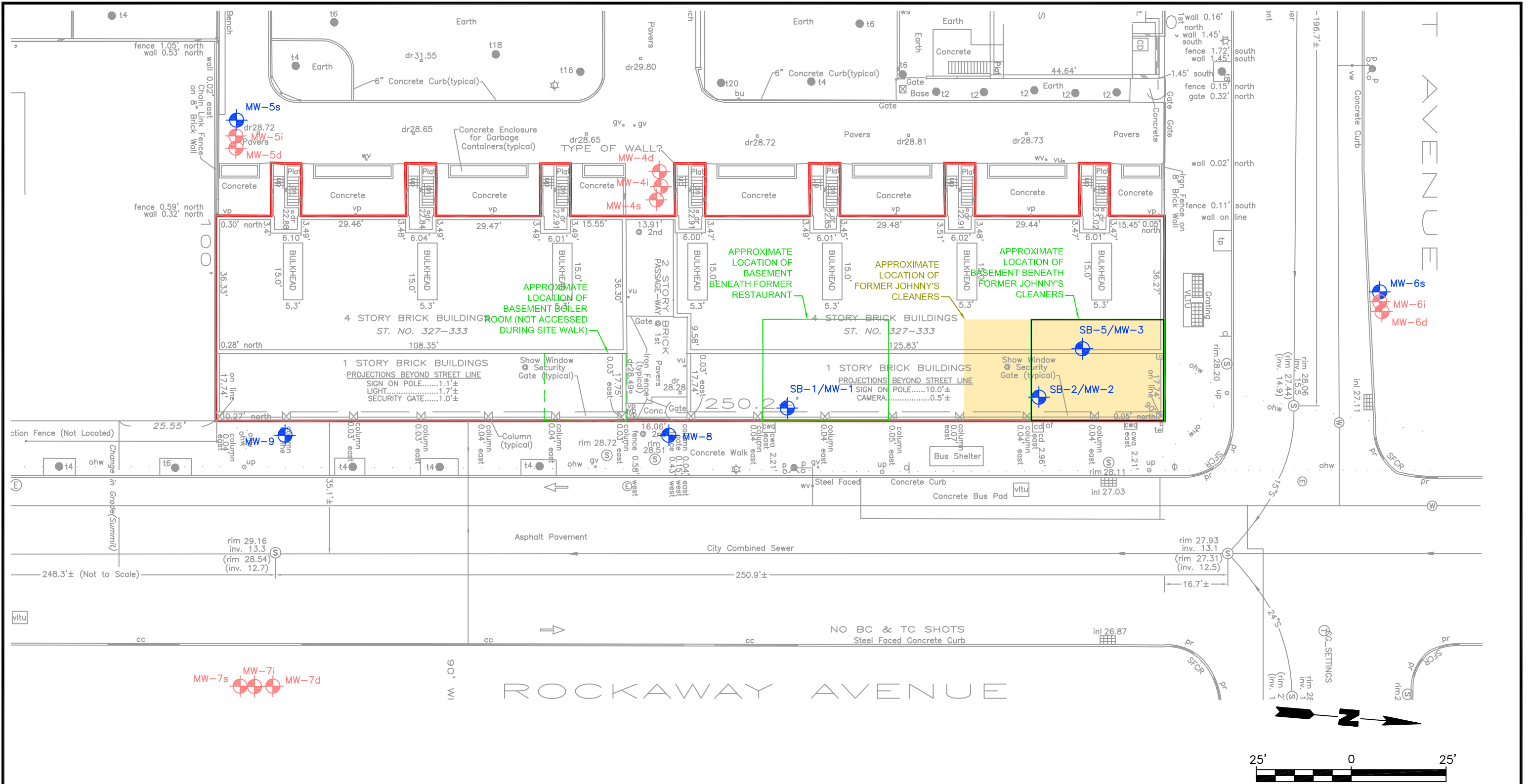
U - Compound was analyzed for but not detected

FD - Duplicate

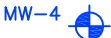




-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

V:\CAD\PROJECTS\2158\0002\154\2158.0002\154.01.DWG




**LEGEND**

-  MW-4 LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
-  MW-1 LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
-  BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
-  APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
-  APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

**NOTES**

1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
2. WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-6S, MW-8 AND MW-9.

<b>Title:</b>			
<b>SITE PLAN</b>			
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVE., BROOKLYN, NY			
Prepared For: C+C APARTMENT MANAGEMENT LLC			
 <b>ROUX ASSOCIATES, INC.</b> <i>Environmental Consulting &amp; Management</i>	Compiled by: N.C. Prepared by: G.M. Project Mgr: N.C.	Date: 10MAR17 Scale: AS SHOWN Project: 2158.0002Y004	FIGURE <b>1</b>
File: 2158.0002Y154.01.DWG			

**Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

---

**ATTACHMENT 1**

Laboratory Analytical Report



## ANALYTICAL REPORT

Lab Number:	L1719664
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	06/19/17

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1719664-01	MW-9	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 07:25	06/13/17
L1719664-02	MW-8	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 07:30	06/13/17
L1719664-03	MW-5S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 08:10	06/13/17
L1719664-04	MW-6S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 08:15	06/13/17
L1719664-05	FIELD BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:00	06/13/17
L1719664-06	MW-3	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:25	06/13/17
L1719664-07	MW-2	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:30	06/13/17
L1719664-08	MW-1	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 10:15	06/13/17
L1719664-09	TRIP BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	05/19/17 00:00	06/13/17

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 06/19/17



# ORGANICS

# VOLATILES

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-01  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 07:25  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/15/17 16:25  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	33		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.64		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-01

Date Collected: 06/13/17 07:25

Client ID: MW-9

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-01  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 07:25  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	118		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-02  
 Client ID: MW-8  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 07:30  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/15/17 16:53  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	22		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.49	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-02

Date Collected: 06/13/17 07:30

Client ID: MW-8

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-02  
 Client ID: MW-8  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 07:30  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	119		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

**Lab ID:** L1719664-03  
**Client ID:** MW-5S  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 06/13/17 08:10  
**Date Received:** 06/13/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 06/15/17 17:21  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-03

Date Collected: 06/13/17 08:10

Client ID: MW-5S

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	11		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-03  
 Client ID: MW-5S  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 08:10  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	115		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-04  
 Client ID: MW-6S  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 08:15  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/15/17 17:49  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-04

Date Collected: 06/13/17 08:15

Client ID: MW-6S

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

**Lab ID:** L1719664-04  
**Client ID:** MW-6S  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 06/13/17 08:15  
**Date Received:** 06/13/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	119		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

**Lab ID:** L1719664-05  
**Client ID:** FIELD BLANK  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 06/13/17 09:00  
**Date Received:** 06/13/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 06/15/17 18:18  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-05

Date Collected: 06/13/17 09:00

Client ID: FIELD BLANK

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-05  
 Client ID: FIELD BLANK  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 09:00  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	119		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

**Lab ID:** L1719664-06  
**Client ID:** MW-3  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 06/13/17 09:25  
**Date Received:** 06/13/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 06/15/17 18:46  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.8		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-06

Date Collected: 06/13/17 09:25

Client ID: MW-3

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-06  
 Client ID: MW-3  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 09:25  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	130		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	120		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-07  
 Client ID: MW-2  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 09:30  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/15/17 19:14  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	11		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-07

Date Collected: 06/13/17 09:30

Client ID: MW-2

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.2		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-07  
 Client ID: MW-2  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 09:30  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	117		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

**Lab ID:** L1719664-08  
**Client ID:** MW-1  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 06/13/17 10:15  
**Date Received:** 06/13/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 06/15/17 19:42  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	78		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.72		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-08

Date Collected: 06/13/17 10:15

Client ID: MW-1

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-08  
 Client ID: MW-1  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 06/13/17 10:15  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	121		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-09  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 05/19/17 00:00  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/15/17 20:11  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

## SAMPLE RESULTS

Lab ID: L1719664-09

Date Collected: 05/19/17 00:00

Client ID: TRIP BLANK

Date Received: 06/13/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**SAMPLE RESULTS**

Lab ID: L1719664-09  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 05/19/17 00:00  
 Date Received: 06/13/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	118		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/15/17 12:10  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1013636-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/15/17 12:10  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1013636-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/15/17 12:10  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1013636-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	111		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1013636-3 WG1013636-4								
Methylene chloride	87		86		70-130	1		20
1,1-Dichloroethane	97		100		70-130	3		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	120		120		63-132	0		20
1,2-Dichloropropane	90		92		70-130	2		20
Dibromochloromethane	93		100		63-130	7		20
1,1,2-Trichloroethane	90		90		70-130	0		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	94		96		75-130	2		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	98		100		67-130	2		20
trans-1,3-Dichloropropene	94		97		70-130	3		20
cis-1,3-Dichloropropene	88		93		70-130	6		20
1,1-Dichloropropene	97		99		70-130	2		20
Bromoform	97		100		54-136	3		20
1,1,2,2-Tetrachloroethane	82		86		67-130	5		20
Benzene	93		93		70-130	0		20
Toluene	92		96		70-130	4		20
Ethylbenzene	97		98		70-130	1		20
Chloromethane	120		120		64-130	0		20
Bromomethane	130		130		39-139	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1013636-3 WG1013636-4								
Vinyl chloride	100		110		55-140	10		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	95		80		70-130	17		20
Trichloroethene	98		97		70-130	1		20
1,2-Dichlorobenzene	96		97		70-130	1		20
1,3-Dichlorobenzene	100		96		70-130	4		20
1,4-Dichlorobenzene	92		96		70-130	4		20
Methyl tert butyl ether	94		88		63-130	7		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	94		96		70-130	2		20
Dibromomethane	93		98		70-130	5		20
1,2,3-Trichloropropane	91		93		64-130	2		20
Acrylonitrile	110		110		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	100		110		36-147	10		20
Acetone	120		100		58-148	18		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	110		120		63-138	9		20
Vinyl acetate	110		120		70-130	9		20
4-Methyl-2-pentanone	88		91		59-130	3		20
2-Hexanone	93		100		57-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1013636-3 WG1013636-4									
Bromochloromethane	95		98		70-130		3		20
2,2-Dichloropropane	110		120		63-133		9		20
1,2-Dibromoethane	83		93		70-130		11		20
1,3-Dichloropropane	83		91		70-130		9		20
1,1,1,2-Tetrachloroethane	99		100		64-130		1		20
Bromobenzene	95		91		70-130		4		20
n-Butylbenzene	94		93		53-136		1		20
sec-Butylbenzene	97		95		70-130		2		20
tert-Butylbenzene	98		99		70-130		1		20
o-Chlorotoluene	98		98		70-130		0		20
p-Chlorotoluene	96		94		70-130		2		20
1,2-Dibromo-3-chloropropane	81		96		41-144		17		20
Hexachlorobutadiene	120		110		63-130		9		20
Isopropylbenzene	98		95		70-130		3		20
p-Isopropyltoluene	98		97		70-130		1		20
Naphthalene	80		83		70-130		4		20
n-Propylbenzene	94		94		69-130		0		20
1,2,3-Trichlorobenzene	98		99		70-130		1		20
1,2,4-Trichlorobenzene	98		97		70-130		1		20
1,3,5-Trimethylbenzene	100		98		64-130		2		20
1,2,4-Trimethylbenzene	97		96		70-130		1		20
1,4-Dioxane	108		106		56-162		2		20
p-Diethylbenzene	95		94		70-130		1		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1719664

Project Number: 2158.0002Y004

Report Date: 06/19/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1013636-3 WG1013636-4								
p-Ethyltoluene	96		95		70-130	1		20
1,2,4,5-Tetramethylbenzene	90		89		70-130	1		20
Ethyl ether	96		100		59-134	4		20
trans-1,4-Dichloro-2-butene	110		110		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	114		116		70-130
Toluene-d8	98		100		70-130
4-Bromofluorobenzene	100		97		70-130
Dibromofluoromethane	103		105		70-130

**Project Name:** MARCUS GARVEY**Lab Number:** L1719664**Project Number:** 2158.0002Y004**Report Date:** 06/19/17**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1719664-01A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-01B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-01C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-02A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-02B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-02C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-03A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-03B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-03C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-04A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-04B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-04C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-05A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-05B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-05C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-06A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-06B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-06C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-07A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-07B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-07C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-08A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-08B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

Serial\_No:06191710:32  
**Lab Number:** L1719664  
**Report Date:** 06/19/17

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1719664-08C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-09A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1719664-09B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 06/19/17

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



**NEW YORK CHAIN OF CUSTODY**

Westborough, MA 01581  
8 Walkup Dr.  
TEL: 508-898-9220  
FAX: 508-898-9193

Mansfield, MA 02048  
320 Forbes Blvd  
TEL: 508-822-9300  
FAX: 508-822-3288

**Service Centers**  
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5  
Albany, NY 12205: 14 Walker Way  
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page |  
of |

Date Rec'd in Lab **6/13/17**

ALPHA Job # **L1719664**

**Client Information**  
Client: **ROUX ASSOCIATES**  
Address: **209 SHAFER ST. ISLANDIA, NY 11749**  
Phone: **631-2322600**  
Fax: **631-2329898**  
Email: **LCURNUTTE@ROUXINC.COM**

**Project Information**  
Project Name: **MARCUS GARNEY**  
Project Location: **650 ROCKAWAY AV. BROOKLYN, NY**  
Project # **2158.0002Y004**  
(Use Project name as Project #)

**Deliverables**  
 ASP-A  ASP-B  
 EQUIS (1 File)  EQUIS (4 File)  
 Other

**Billing Information**  
 Same as Client Info  
PO #

Project Manager: **LEVI CURNUTTE**  
ALPHAQuote #:

**Turn-Around Time**  
Standard  Due Date:  
Rush (only if pre approved)  # of Days:

**Regulatory Requirement**  
 NY TOGS  NY Part 375  
 AWQ Standards  NY CP-51  
 NY Restricted Use  Other  
 NY Unrestricted Use  
 NYC Sewer Discharge

**Disposal Site Information**  
Please identify below location of applicable disposal facilities.  
Disposal Facility:  
 NJ  NY  
 Other:

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

**ANALYSIS**

**Sample Filtration**  
 Done  
 Lab to do  
**Preservation**  
 Lab to do  
(Please Specify below)

Please specify Metals or TAL.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	TCL VOCs (8260)	ANALYSIS										Sample Specific Comments	Total Bottles						
		Date	Time																					
19664-01	MW-9	6-13-17	0725	GW	AF	X																		
02	MW-8	6-13-17	0730	GW	MS	X																		
03	MW-5S	6-13-17	0810	GW	AF	X																		
04	MW-6S	6-13-17	0815	GW	MS	X																		
05	FIELD BLANK	6-13-17	0900	FB	AF	X																		
06	MW-3	6-13-17	0925	GW	AF	X																		
07	MW-2	6-13-17	0930	GW	MS	X																		
08	MW-1	6-13-17	1015	GW	MS	X																		
09	TRIP BLANK	5-19-17	-	LAB	JD	X																		

**Preservative Code:**  
A = None  
B = HCl  
C = HNO<sub>3</sub>  
D = H<sub>2</sub>SO<sub>4</sub>  
E = NaOH  
F = MeOH  
G = NaHSO<sub>4</sub>  
H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
K/E = Zn Ac/NaOH  
O = Other

**Container Code:**  
P = Plastic  
A = Amber Glass  
V = Vial  
G = Glass  
B = Bacteria Cup  
C = Cube  
O = Other  
E = Encore  
D = BOD Bottle

Westboro: Certification No: MA935  
Mansfield: Certification No: MA015

Container Type   
Preservative **B**

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i> ROUX	6/13/17 14:30	<i>[Signature]</i> AAL	6-13-17 14:30
<i>[Signature]</i> AB	6/13/17 2:40	<i>[Signature]</i> AD	6/13/17 17:12
		<i>[Signature]</i>	6/13/17 22:40

**Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 2**

Field Sampling Sheets



SITE NAME: Marcus Garvey Project Number: 2158.0002Y003

Weather: 80°s, sunny Date: 6/13/2017  
 Well ID: MW-1 Intake depth: ~ 17'  
 DTW: 12.56 Vol Purged: 0.8 GAL  
 DTB: 20.12  
 Sampler: Michael Sarni / Alfredo Fernandez  
 Purge Start: 0945 Purge End Time: 1015  
 Purge Water Description: clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0945	12.56	100	17.33	1.12	9.78	6.75	200	32.4
0948			17.30	1.12	9.74	6.75	226	18.6
0951			17.29	1.12	9.73	6.75	237	16.4
0954			17.26	1.12	9.70	6.75	271	12.0
0957			17.38	1.12	9.67	6.75	307	9.2
10:02			17.27	1.12	9.56	6.75	334	8.4
10 03			17.25	1.12	9.63	6.74	357	8.6
10 06			17.27	1.11	9.62	6.75	375	7.9
10 09			17.25	1.11	9.58	6.74	380	7.8
10 12			17.26	1.11	9.57	6.74	398	7.2
10 15			17.28	1.11	9.56	6.74	399	7.1

Sample time: ~~1015~~ 1015

SITE NAME: Marcus Garvey Project Number: 2158.0002Y003

Weather: Basement Sunny 94°F Date: 6/13/2017  
 Well ID: MW-2 Intake depth: ~ 17'  
 DTW: MW-19-55 Vol Purged: 0.8 GAL  
 DTB: 20.03  
 Sampler: Michael Sarni / Alfredo Fernandez  
 Purge Start: 0900 Purge End Time: 0930  
 Purge Water Description: clear/purple

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0900	19.55	0.00	19.44	0.853	4.73	6.61	518	57.1
0903			19.09	0.869	4.11	6.61	410	13.2
0906			18.72	0.864	3.96	6.60	459	6.1
0909			18.93	0.860	3.86	6.60	511	2.5
0913			18.31	0.866	3.85	6.59	523	2.1
0915			18.22	0.863	3.76	6.58	552	2.2
0918			18.16	0.863	3.70	6.58	539	1.9
0921			18.13	0.865	2.64	6.58	543	1.9
0924			18.09	0.865	3.62	6.58	548	1.9
0927			18.07	0.864	3.75	6.57	550	2.0
0930			18.04	0.863	2.79	6.57	551	2.0

Sample time 0930



SITE NAME: Marcus Garvey

Project Number: 2158.0002Y003

Weather: 80<sup>o</sup>S. SUNNY

Date: 6/13/2017

Well ID: MW-3

Intake depth: ~17'

DTW: 12.41

Vol Purged: 0.9 GAL

DTB: 20.05

Sampler: Michael Sarni / Alfredo Fernandez

Purge Start 0852

Purge End Time: 0925

Purge Water

Description: CLEAR

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0855	12.41	100	18.32	0.427	10.75	6.60	160	28.3
0858	12.41	100	17.93	0.434	10.52	6.60	164	20.4
0901	12.41	100	17.74	0.443	10.33	6.59	168	15.9
0904	12.41	100	17.62	0.446	10.12	6.58	170	11.3
0907	12.41	100	17.48	0.462	10.04	6.59	170	5.4
0910	12.41	100	17.43	0.469	9.96	6.59	171	5.1
0913	12.41	100	17.41	0.474	9.93	6.59	171	4.7
0916	12.41	100	17.40	0.477	9.90	6.59	171	4.2
0919	12.41	100	17.38	0.478	9.87	6.59	172	3.6
0922	12.41	100	17.37	0.479	9.85	6.59	173	3.3
0925	12.41	100	17.36	0.479	9.85	6.59	173	3.0

SAMPLE TIME = 0925

SITE NAME: Marcus Garvey Project Number: 2158.0002Y003

Weather: 80°S, SUNNY Date: 6/13/2017  
Well ID: MW-55 Intake depth: ~18'  
DTW: 21.60 Vol Purged: 0.8 GAL  
DTB: 30.00  
Sampler: Michael Sarni / Alfredo Fernandez  
Purge Start: 0739 Purge End Time: 0809  
Purge Water: 0809  
Description: 0809

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0742	21.60	100	20.48	0.577	6.28	6.60	146	13.2
0745	21.60	100	20.64	0.569	5.39	6.60	148	10.1
0748	21.60	100	20.93	0.564	5.02	6.59	151	96.3
0751	21.60	100	21.32	0.559	4.73	6.59	153	84.1
0754	21.60	100	21.54	0.557	4.42	6.59	154	77.2
0757	21.60	100	21.62	0.554	4.31	6.59	154	71.6
0800	21.60	100	21.68	0.552	4.12	6.58	155	64.8
0803	21.60	100	21.71	0.552	4.09	6.58	155	60.2
0806	21.60	100	21.74	0.551	4.06	6.58	155	59.3
0809	21.60	100	21.75	0.551	4.04	6.58	155	58.7

SAMPLE TIME: 0810



SITE NAME: Marcus Garvey

Project Number: 2158.0002Y003

Weather: Sunny 94°F Date: 6/13/2017  
 Well ID: MW-65 Intake depth: ~27  
 DTW: 21.19 Vol Purged: 0.8 GAL  
 DTB: 30.00  
 Sampler: Michael Sarni / Alfredo Fernandez  
 Purge Start: 0745 Purge End Time: 0815  
 Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0745	21.19	100	19.80	0.446	-14.54	6.59	159	23.2
0748			19.95	0.442	2.30	6.60	160	25.3
0751			20.35	0.442	5.31	6.59	162	30.3
0754			21.14	0.435	5.02	6.58	162	44.0
0757			21.56	0.433	4.80	6.57	163	51.2
8000			21.93	0.430	4.69	6.56	164	55.3
0803			21.97	0.433	4.61	6.56	165	56.8
0806			22.07	0.430	4.58	6.57	165	59.1
0809			22.11	0.431	4.52	6.57	166	60.3
0812			22.15	0.430	4.49	6.58	166	61.4
0815			22.16	0.430	4.45	6.57	166	62.5

Sample time 0815

SITE NAME: Marcus Garvey

Project Number: 2158.0002Y003

Weather: Sunny 94°F Date: 6/13/2017  
 Well ID: MW-8 Intake depth: ~ 25  
 DTW: 21.15 Vol Purged: 0.8 GAL  
 DTB: 28.65  
 Sampler: Michael Samir / Alfredo Fernandez  
 Purge Start: 0700 Purge End Time: 0730  
 Purge Water Description: clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0700	21.15	100	19.06	0.802	15.01	6.76	119	13.10
0703	↓	↓	19.31	0.799	12.39	6.75	121	4.7
0706			19.39	0.813	11.75	6.72	128	3.0
0709			20.17	0.810	10.45	6.71	132	1.1
0712			20.73	0.804	9.85	6.69	134	0.6
0715			20.86	0.802	9.67	6.69	136	0.7
0718			20.89	0.817	9.58	6.68	139	0.6
0721			20.92	0.858	9.35	6.68	141	0.4
0724			21.04	0.865	9.30	6.68	142	0.3
0727			21.07	0.871	9.25	6.68	144	0.3
0730			21.11	0.873	9.21	6.68	145	0.3

Sample time 0730



**SITE NAME:**

Marcus Garvey

**Project Number:**

2158.0002Y003

Weather: 80's SUNNY

Date: 6/13/2017

Well ID: MW-9

Intake depth: ~26'

DTW: 21.79

Vol Purged: 0.8 GAL

DTB: 29.19

Sampler: Michael Sarni / Alfredo Fernandez

Purge Start

0651

Purge End Time: 0721

Purge Water

Description: CLEAR

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0654	21.79	100	20.77	1.03	4.03	6.64	136	58.7
0657	21.79	100	20.06	0.995	2.18	6.61	148	39.6
0700	21.79	100	19.77	0.992	1.87	6.61	149	37.5
0703	21.79	100	19.49	0.986	1.49	6.60	149	33.2
0706	21.79	100	19.27	0.985	1.30	6.60	149	32.4
0709	21.79	100	19.23	0.984	1.18	6.60	149	30.8
0712	21.79	100	19.20	0.984	1.11	6.60	149	27.2
0715	21.79	100	19.17	0.983	1.09	6.60	149	23.9
0718	21.79	100	19.14	0.983	1.08	6.60	149	22.8
0721	21.79	100	19.11	0.983	1.07	6.60	149	21.3

SAMPLE TIME: 0725

**REMEDIAL ENGINEERING, P.C.**  
**ENVIRONMENTAL ENGINEERS**

209 SHAFTER STREET  
ISLANDIA, NEW YORK 11749  
TEL: 631-232-2600  
FAX: 631 232-9898

October 11, 2017

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: August 31, 2017 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Associates, Inc. and Remedial Engineering, P.C. (collectively referred to as Roux Associates) conducted quarterly groundwater sampling on behalf of Marcus Garvey Preservation LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs), primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis-1,2,-dichloroethene (1,2-DCE). The remedy for the Site included removal of source material soil and implementation of *in situ* potassium permanganate injections completed in July and August 2016, respectively.

Groundwater sampling for volatile organic compounds (VOCs) was conducted on August 31, 2017 by Roux Associates at seven monitoring wells that are part of the long-term Site monitoring network. This was the fourth post-remediation sampling round completed out of eight rounds described in the SMP. On-Site groundwater monitoring wells MW-1, MW-2, and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9 are shown on Figure 1. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux Associates' January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and the quarterly post-remediation sampling events. The analytical

report from Alpha Laboratories (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively.

On August 31, 2017, the seven groundwater wells were successfully sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for VOCs. No on-Site or off-Site wells exceeded New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards and Guidance Values (AWQSGVs) for the COC TCE and no detections of 1,2 DCE were observed in the August 2017 sampling round. The trends in the PCE concentrations observed in on-Site and off-Site monitoring wells with time are summarized below.

#### PCE Trends in On-Site Monitoring Wells

The highest concentration of PCE in on-Site monitoring wells was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW-2. Results from MW-2 from the August 2017 sampling event show that the PCE concentration was 3.8 ppb, which is below the NYSDEC AWQSGV of 5 ppb and corresponds to a reduction of over 99%. At well MW-1, the concentration of PCE was detected at 3,200 ppb in August 2014. PCE was detected at 31 ppb in well MW-1 during the August 2017 sampling event, the lowest concentration observed at this monitoring well to date, corresponding to a greater than a 99% reduction. The highest PCE concentration at MW-3 was 2,700 ppb (August 2014). The August 2017 PCE groundwater concentration at MW-3 was 3.3 ppb, also below the NYSDEC AWQSGV. This corresponds to a greater than 99 percent decrease at MW-3.

#### PCE Trends in Off-Site Monitoring Wells

MW-8 is the off-Site well located closest to where *in situ* injections were completed at the Site. PCE at MW-8 was detected at 20 ppb, which corresponds to a greater than an 85% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was detected at 12 ppb, below the PCE concentration detected during baseline sampling in July of 2016 (20 ppb). Due to the distance of MW-9 from the injections area, significant influence was not expected at this well.

#### Request to Remove Monitoring Wells MW-3, MW-5S, and MW-6S from the Sampling Program

Concentrations of COCs in off-Site monitoring wells MW-5S and MW-6S have been low to non-detect during all sampling rounds (pre- and post-remediation) and have been below NYSDEC AWQSGVs since July of 2016. Additionally, concentrations of COCs in the on-Site monitoring well MW-3 have been non-detect or below NYSDEC AWQSGVs since August of 2016. Due to the consistently low to non-detect concentrations in these three wells for over one year, Marcus Garvey Preservation LLC respectfully requests that they be removed from the sampling program. We will await your formal approval of this request before implementing the change.

The data presented in this report demonstrates that the remedial actions implemented at the Site were effective. As outlined in the SMP for the Site, Roux Associates will continue to perform quarterly sampling (with the exception of MW-3, MW-5S, and MW-6S if the above request is approved) and submit subsequent groundwater sampling event notifications.

Stephen G. Malsan, P.E.

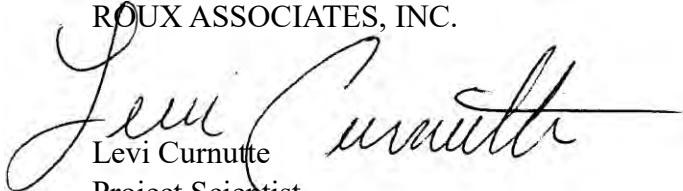
October 11, 2017

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Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at 631-232-2600, if you have questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.



Levi Curnutte  
Project Scientist

REMEDIAL ENGINEERING, P.C.



Noelle M. Clarke, P.E.

Principal Engineer

Attachments

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	75 UD	3.8 U	3 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	620 U	500 U	250 U	250 U	250 U	250 U
2,2,2-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	250 UD	12 U	10 U	4.2 J	2.6 J	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:					
				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:					
				N	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Benzene	1	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U	0.5 U
Bromoform	--	50	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
Bromomethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	120 UD	6.4	6.8	4.7	2.5 U	2.5 U
Chloromethane	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	60 JD	2.2 J	2.3 J	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	60 JD	2.2 J	2.3 J	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:					
				N	N	FD	N	N	N
N-Propylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	<b>78</b>
Toluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	0.72
Trichlorofluoromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	150 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1.0 U	100 UD	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	50 UD	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	25000 UD	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5.0 U	500 UD	5 U	<b>200</b>	16	5.2	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-1	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:					
				8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:					
				N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2.0 U	200 UD	2 U	2.1	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	250 UD	2.5 U	2.1 J	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	500 UD	5 U	8.7	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-2	MW-2	MW-2	MW-2	MW-2
Normal or Field Duplicate:				8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>31</b>	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>	<b>11</b>
Toluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.48 J	<b>110 D</b>	0.49 J	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1.0 U	100 UD	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	75 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	100 UD	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	100 UD	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1.0 U	50 UD	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	25 UD	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	100 UD	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	12000 UD	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2.0 U	100 UD	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	12	250 UD	5 U	<b>58</b>	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Acrylonitrile	5	--	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	1.0 J	100 UD	2 U	1.6 J	2 U	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	0.97 J	120 UD	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	250 UD	5 U	3.9 J	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-2	MW-3	MW-3	MW-3	MW-3	MW-3
Normal or Field Duplicate:				8/31/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	--	µg/L	3.8	<b>2700 D</b>	<b>32</b>	0.5 U	4.2	2.8
Toluene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	25 UD	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.50 U	<b>28 D</b>	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5.0 U	250 UD	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1.0 U	50 UD	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	120 UD	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-3	MW-3	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:					
				8/31/2017	8/31/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:					
				N	FD	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U
Acetone	--	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.6 J	5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-3	MW-3	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:					
				8/31/2017	8/31/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:					
				N	FD	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Acrylonitrile	5	--	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Benzene	1	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.77	0.5 U
Bromoform	--	50	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	<b>9.8</b>	2.6
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-3	MW-3	MW-5S	MW-5S	MW-5S	MW-5S
Normal or Field Duplicate:				8/31/2017	8/31/2017	8/19/2014	8/19/2014	7/14/2016	8/18/2016
				N	FD	N	FD	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	3.3	3	0.54	0.54	1	0.82
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	NA	NA	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1.0 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	0.50 U	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	11	5.0 U	5.0 U	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	8/18/2014	7/14/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.25 J	0.5 U	0.50 U	<b>7.2</b>	3.4	1.8	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1.0 U	1.0 U	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	4 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	4 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	2 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	4 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	500 U	250 U	250 U	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	4 U	2 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	1	1.9	1.9	
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	4 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	µg/L	2.5 U	2.5 U	2.5 U	<b>12</b>	<b>19</b>	<b>19</b>	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.4 J	2 J	2 J	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.4 J	2 J	2 J	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-6S	MW-8	MW-8	MW-8
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	7/14/2016	8/18/2016	8/18/2016
				Normal or Field Duplicate:	N	N	N	N	N	FD
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.5 U	0.5 U	0.24 J	<b>140</b>	<b>140</b>	<b>140</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	2.9	2.8	2.8	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1.0 U	2 U	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
				Sample Date:	2/28/2017	6/13/2017	8/31/2017	7/14/2016	8/18/2016	2/28/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
Normal or Field Duplicate:				2/28/2017	6/13/2017	8/31/2017	7/14/2016	8/18/2016	2/28/2017
				N	N	N	N	N	N
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	2 U	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	0.71 J	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	1.1 J	2.5 U	2.5 U	2.5 U	2.5 U	0.84 J
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-8	MW-8	MW-8	MW-9	MW-9	MW-9
Normal or Field Duplicate:				2/28/2017	6/13/2017	8/31/2017	7/14/2016	8/18/2016	2/28/2017
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>36</b>	<b>22</b>	<b>20</b>	<b>20</b>	<b>24</b>	<b>35</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.9	0.49 J	0.52	0.61	0.79	0.75
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1.0 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9
				Sample Date:	6/13/2017	8/31/2017
				Normal or Field Duplicate:	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units			
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.50 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.50 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2.0 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2.0 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.50 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1.0 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	0.50 U	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2.0 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5.0 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2.0 U	
Acetone	--	50	µg/L	5 U	5.0 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9
				Sample Date:	6/13/2017	8/31/2017
				Normal or Field Duplicate:	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units			
Acrylonitrile	5	--	µg/L	5 U	5.0 U	
Benzene	1	--	µg/L	0.5 U	0.50 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.50 U	
Bromoform	--	50	µg/L	2 U	2.0 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5.0 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.50 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.50 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.50 U	
Dibromomethane	5	--	µg/L	5 U	5.0 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5.0 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5.0 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5.0 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	6/13/2017
				Normal or Field Duplicate:	
				N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>33</b>	<b>12</b>
Toluene	5	--	µg/L	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.64	0.45 J
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

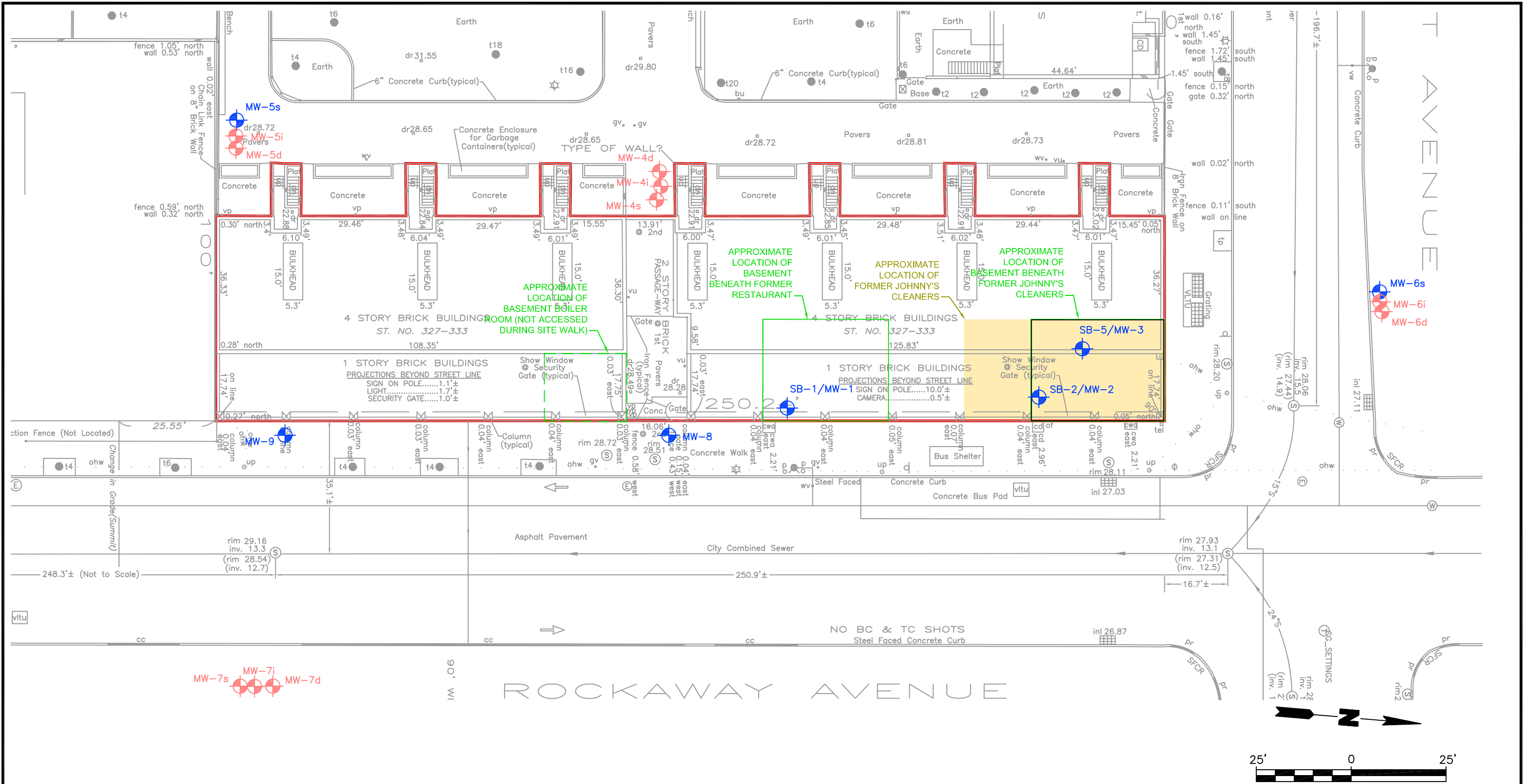
U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**LEGEND**

- MW-4** LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
- MW-1** LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
- BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY**
- APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY**
- APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)**

**NOTES**

1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
2. WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-6S, MW-8 AND MW-9.

<b>Title:</b>			
<b>SITE PLAN</b>			
MARCUS GARVEY APARTMENTS 650 ROCKAWAY AVE., BROOKLYN, NY			
Prepared For: <b>C+C APARTMENT MANAGEMENT LLC</b>			
	Compiled by: N.C.	Date: 10MAR17	FIGURE
ROUX ASSOCIATES, INC. <i>Environmental Consulting &amp; Management</i>	Prepared by: G.M.	Scale: AS SHOWN	<b>1</b>
	Project Mgr: N.C.	Project: 2158.0002Y004	
	File: 2158.0002Y155.01.DWG		

Laboratory Analytical Report





## ANALYTICAL REPORT

Lab Number:	L1730772
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	09/07/17

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1730772-01	MW-8	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 07:30	08/31/17
L1730772-02	MW-9	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 07:35	08/31/17
L1730772-03	MW-2	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:15	08/31/17
L1730772-04	MW-3	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:20	08/31/17
L1730772-05	DUP-083117	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:25	08/31/17
L1730772-06	FIELD BLANK-083117	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:00	08/31/17
L1730772-07	MW-1	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:10	08/31/17
L1730772-08	MW-6S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:30	08/31/17
L1730772-09	MW-5S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:55	08/31/17
L1730772-10	TRIP BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/30/17 00:00	08/31/17

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Melissa Cripps

Title: Technical Director/Representative

Date: 09/07/17

# ORGANICS

# VOLATILES

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-01  
**Client ID:** MW-8  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 07:30  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/06/17 23:16  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	20		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.52		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-01

Date Collected: 08/31/17 07:30

Client ID: MW-8

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-01  
 Client ID: MW-8  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 07:30  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-02  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 07:35  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/06/17 23:52  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	12		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.45	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-02

Date Collected: 08/31/17 07:35

Client ID: MW-9

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-02  
**Client ID:** MW-9  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 07:35  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-03  
**Client ID:** MW-2  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:15  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/07/17 00:27  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.97	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	3.8		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	1.0	J	ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-03  
**Client ID:** MW-2  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:15  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	12		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-03  
**Client ID:** MW-2  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:15  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-04  
**Client ID:** MW-3  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:20  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/06/17 22:39  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	3.3		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-04

Date Collected: 08/31/17 08:20

Client ID: MW-3

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-04  
**Client ID:** MW-3  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:20  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	103		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-05  
**Client ID:** DUP-083117  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 08:25  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/07/17 01:03  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	3.0		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-05

Date Collected: 08/31/17 08:25

Client ID: DUP-083117

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-05  
 Client ID: DUP-083117  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 08:25  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	107		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-06  
 Client ID: FIELD BLANK-083117  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:00  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/07/17 01:38  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-06

Date Collected: 08/31/17 09:00

Client ID: FIELD BLANK-083117

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-06  
 Client ID: FIELD BLANK-083117  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:00  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-07  
**Client ID:** MW-1  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 09:10  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/06/17 23:14  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	31		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.48	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-07

Date Collected: 08/31/17 09:10

Client ID: MW-1

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-07  
 Client ID: MW-1  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:10  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-08  
 Client ID: MW-6S  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:30  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/06/17 23:49  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.24	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-08

Date Collected: 08/31/17 09:30

Client ID: MW-6S

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-08  
 Client ID: MW-6S  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:30  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	104		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-09  
 Client ID: MW-5S  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/31/17 09:55  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 09/07/17 00:24  
 Analyst: NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-09

Date Collected: 08/31/17 09:55

Client ID: MW-5S

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-09  
**Client ID:** MW-5S  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/31/17 09:55  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	103		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

**Lab ID:** L1730772-10  
**Client ID:** TRIP BLANK  
**Sample Location:** 650 ROCKAWAY AV., BROOKLYN, NY

**Date Collected:** 08/30/17 00:00  
**Date Received:** 08/31/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 09/06/17 22:41  
**Analyst:** NL

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

## SAMPLE RESULTS

Lab ID: L1730772-10

Date Collected: 08/30/17 00:00

Client ID: TRIP BLANK

Date Received: 08/31/17

Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**SAMPLE RESULTS**

Lab ID: L1730772-10  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AV., BROOKLYN, NY

Date Collected: 08/30/17 00:00  
 Date Received: 08/31/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:04  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04,07-09 Batch: WG1039292-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:04  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04,07-09 Batch: WG1039292-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:04  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04,07-09 Batch: WG1039292-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	101		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:08  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06,10 Batch: WG1039331-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:08  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06,10 Batch: WG1039331-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 09/06/17 19:08  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06,10 Batch: WG1039331-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 Batch: WG1039292-3 WG1039292-4								
Methylene chloride	88		93		70-130	6		20
1,1-Dichloroethane	85		91		70-130	7		20
Chloroform	95		100		70-130	5		20
Carbon tetrachloride	91		97		63-132	6		20
1,2-Dichloropropane	92		97		70-130	5		20
Dibromochloromethane	97		100		63-130	3		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	94		99		75-130	5		20
Trichlorofluoromethane	91		100		62-150	9		20
1,2-Dichloroethane	97		100		70-130	3		20
1,1,1-Trichloroethane	93		100		67-130	7		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	92		95		70-130	3		20
cis-1,3-Dichloropropene	92		96		70-130	4		20
1,1-Dichloropropene	88		94		70-130	7		20
Bromoform	100		110		54-136	10		20
1,1,2,2-Tetrachloroethane	110		120		67-130	9		20
Benzene	91		96		70-130	5		20
Toluene	90		96		70-130	6		20
Ethylbenzene	95		100		70-130	5		20
Chloromethane	<b>33</b>	Q	<b>30</b>	Q	64-130	10		20
Bromomethane	42		44		39-139	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 Batch: WG1039292-3 WG1039292-4								
Vinyl chloride	68		75		55-140	10		20
Chloroethane	88		89		55-138	1		20
1,1-Dichloroethene	82		90		61-145	9		20
trans-1,2-Dichloroethene	87		93		70-130	7		20
Trichloroethene	91		96		70-130	5		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	95		100		70-130	5		20
1,4-Dichlorobenzene	95		100		70-130	5		20
Methyl tert butyl ether	120		120		63-130	0		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	94		95		70-130	1		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	99		110		70-130	11		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	72		78		36-147	8		20
Acetone	94		100		58-148	6		20
Carbon disulfide	61		65		51-130	6		20
2-Butanone	100		110		63-138	10		20
Vinyl acetate	110		120		70-130	9		20
4-Methyl-2-pentanone	110		120		59-130	9		20
2-Hexanone	100		110		57-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 Batch: WG1039292-3 WG1039292-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	140	Q	140	Q	63-133	0		20
1,2-Dibromoethane	110		120		70-130	9		20
1,3-Dichloropropane	99		100		70-130	1		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	99		100		70-130	1		20
n-Butylbenzene	86		93		53-136	8		20
sec-Butylbenzene	90		96		70-130	6		20
tert-Butylbenzene	89		95		70-130	7		20
o-Chlorotoluene	86		92		70-130	7		20
p-Chlorotoluene	86		92		70-130	7		20
1,2-Dibromo-3-chloropropane	120		120		41-144	0		20
Hexachlorobutadiene	97		100		63-130	3		20
Isopropylbenzene	90		96		70-130	6		20
p-Isopropyltoluene	91		97		70-130	6		20
Naphthalene	130		140	Q	70-130	7		20
n-Propylbenzene	89		95		69-130	7		20
1,2,3-Trichlorobenzene	140	Q	150	Q	70-130	7		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	91		97		64-130	6		20
1,2,4-Trimethylbenzene	90		95		70-130	5		20
1,4-Dioxane	126		136		56-162	8		20
p-Diethylbenzene	87		92		70-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 Batch: WG1039292-3 WG1039292-4								
p-Ethyltoluene	88		93		70-130	6		20
1,2,4,5-Tetramethylbenzene	89		95		70-130	7		20
Ethyl ether	96		100		59-134	4		20
trans-1,4-Dichloro-2-butene	84		90		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		99		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	87		89		70-130
Dibromofluoromethane	104		104		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06,10 Batch: WG1039331-3 WG1039331-4								
Methylene chloride	110		100		70-130	10		20
1,1-Dichloroethane	96		100		70-130	4		20
Chloroform	87		93		70-130	7		20
Carbon tetrachloride	64		72		63-132	12		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	83		88		63-130	6		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	88		93		70-130	6		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	86		95		62-150	10		20
1,2-Dichloroethane	88		93		70-130	6		20
1,1,1-Trichloroethane	<b>66</b>	Q	76		67-130	14		20
Bromodichloromethane	81		86		67-130	6		20
trans-1,3-Dichloropropene	73		78		70-130	7		20
cis-1,3-Dichloropropene	79		87		70-130	10		20
1,1-Dichloropropene	92		99		70-130	7		20
Bromoform	70		76		54-136	8		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	100		110		70-130	10		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	<b>140</b>	Q	<b>140</b>	Q	64-130	0		20
Bromomethane	130		130		39-139	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06,10 Batch: WG1039331-3 WG1039331-4								
Vinyl chloride	120		120		55-140	0		20
Chloroethane	110		120		55-138	9		20
1,1-Dichloroethene	95		100		61-145	5		20
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	92		97		70-130	5		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	71		79		63-130	11		20
p/m-Xylene	110		120		70-130	9		20
o-Xylene	115		120		70-130	4		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Dibromomethane	86		99		70-130	14		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Acrylonitrile	130		130		70-130	0		20
Styrene	115		120		70-130	4		20
Dichlorodifluoromethane	120		130		36-147	8		20
Acetone	130		87		58-148	40	Q	20
Carbon disulfide	110		98		51-130	12		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	88		100		70-130	13		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	100		100		57-130	0		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06,10 Batch: WG1039331-3 WG1039331-4								
Bromochloromethane	97		110		70-130	13		20
2,2-Dichloropropane	53	Q	60	Q	63-133	12		20
1,2-Dibromoethane	98		100		70-130	2		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	81		85		64-130	5		20
Bromobenzene	96		98		70-130	2		20
n-Butylbenzene	100		110		53-136	10		20
sec-Butylbenzene	110		120		70-130	9		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	63		71		41-144	12		20
Hexachlorobutadiene	79		86		63-130	8		20
Isopropylbenzene	110		120		70-130	9		20
p-Isopropyltoluene	110		120		70-130	9		20
Naphthalene	90		100		70-130	11		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	80		99		70-130	21	Q	20
1,2,4-Trichlorobenzene	88		91		70-130	3		20
1,3,5-Trimethylbenzene	110		120		64-130	9		20
1,2,4-Trimethylbenzene	110		120		70-130	9		20
1,4-Dioxane	96		100		56-162	4		20
p-Diethylbenzene	110		120		70-130	9		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1730772

Project Number: 2158.0002Y004

Report Date: 09/07/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06,10 Batch: WG1039331-3 WG1039331-4								
p-Ethyltoluene	110		120		70-130	9		20
1,2,4,5-Tetramethylbenzene	100		110		70-130	10		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	99		100		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	91		93		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	99		101		70-130
Dibromofluoromethane	101		104		70-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1730772

**Project Number:** 2158.0002Y004

**Report Date:** 09/07/17

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 QC Batch ID: WG1039292-6 WG1039292-7 QC Sample: L1730772-04 Client ID: MW-3												
Methylene chloride	ND	10	11	110		11	110		70-130	0		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	12	120		13	130		70-130	8		20
Carbon tetrachloride	ND	10	11	110		12	120		63-132	9		20
1,2-Dichloropropane	ND	10	11	110		12	120		70-130	9		20
Dibromochloromethane	ND	10	11	110		11	110		63-130	0		20
1,1,2-Trichloroethane	ND	10	12	120		12	120		70-130	0		20
Tetrachloroethene	3.3	10	14	107		15	117		70-130	7		20
Chlorobenzene	ND	10	10	100		11	110		75-130	10		20
Trichlorofluoromethane	ND	10	12	120		12	120		62-150	0		20
1,2-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
1,1,1-Trichloroethane	ND	10	11	110		12	120		67-130	9		20
Bromodichloromethane	ND	10	12	120		13	130		67-130	8		20
trans-1,3-Dichloropropene	ND	10	9.7	97		10	100		70-130	3		20
cis-1,3-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
1,1-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
Bromoform	ND	10	11	110		11	110		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10	12	120		12	120		67-130	0		20
Benzene	ND	10	11	110		12	120		70-130	9		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	11	110		11	110		70-130	0		20
Chloromethane	ND	10	2.7	27	Q	2.7	27	Q	64-130	0		20
Bromomethane	ND	10	3.8	38	Q	5.3	53		39-139	33	Q	20

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** MARCUS GARVEY

**Lab Number:** L1730772

**Project Number:** 2158.0002Y004

**Report Date:** 09/07/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 QC Batch ID: WG1039292-6 WG1039292-7 QC Sample: L1730772-04 Client ID: MW-3												
Vinyl chloride	ND	10	8.0	80		8.3	83		55-140	4		20
Chloroethane	ND	10	10	100		11	110		55-138	10		20
1,1-Dichloroethene	ND	10	10	100		11	110		61-145	10		20
trans-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Trichloroethene	ND	10	11	110		12	120		70-130	9		20
1,2-Dichlorobenzene	ND	10	10	100		11	110		70-130	10		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
Methyl tert butyl ether	ND	10	14	140	Q	15	150	Q	63-130	7		20
p/m-Xylene	ND	20	22	110		22	110		70-130	0		20
o-Xylene	ND	20	22	110		22	110		70-130	0		20
cis-1,2-Dichloroethene	ND	10	12	120		12	120		70-130	0		20
Dibromomethane	ND	10	13	130		14	140	Q	70-130	7		20
1,2,3-Trichloropropane	ND	10	11	110		11	110		64-130	0		20
Acrylonitrile	ND	10	9.9	99		12	120		70-130	19		20
Styrene	ND	20	22	110		22	110		70-130	0		20
Dichlorodifluoromethane	ND	10	8.8	88		9.0	90		36-147	2		20
Acetone	ND	10	11	110		14	140		58-148	24	Q	20
Carbon disulfide	ND	10	7.1	71		7.4	74		51-130	4		20
2-Butanone	ND	10	14	140	Q	13	130		63-138	7		20
Vinyl acetate	ND	10	12	120		13	130		70-130	8		20
4-Methyl-2-pentanone	ND	10	11	110		12	120		59-130	9		20
2-Hexanone	ND	10	12	120		12	120		57-130	0		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1730772

**Project Number:** 2158.0002Y004

**Report Date:** 09/07/17

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 QC Batch ID: WG1039292-6 WG1039292-7 QC Sample: L1730772-04 Client ID: MW-3												
Bromochloromethane	ND	10	13	130		13	130		70-130	0		20
2,2-Dichloropropane	ND	10	13	130		14	140	Q	63-133	7		20
1,2-Dibromoethane	ND	10	12	120		13	130		70-130	8		20
1,3-Dichloropropane	ND	10	11	110		11	110		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	12	120		12	120		64-130	0		20
Bromobenzene	ND	10	10	100		11	110		70-130	10		20
n-Butylbenzene	ND	10	8.8	88		9.1	91		53-136	3		20
sec-Butylbenzene	ND	10	9.2	92		9.4	94		70-130	2		20
tert-Butylbenzene	ND	10	9.2	92		9.5	95		70-130	3		20
o-Chlorotoluene	ND	10	9.2	92		9.4	94		70-130	2		20
p-Chlorotoluene	ND	10	9.0	90		9.2	92		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	10	12	120		13	130		41-144	8		20
Hexachlorobutadiene	ND	10	9.6	96		10	100		63-130	4		20
Isopropylbenzene	ND	10	9.4	94		9.6	96		70-130	2		20
p-Isopropyltoluene	ND	10	9.3	93		9.6	96		70-130	3		20
Naphthalene	ND	10	14	140	Q	14	140	Q	70-130	0		20
n-Propylbenzene	ND	10	9.3	93		9.5	95		69-130	2		20
1,2,3-Trichlorobenzene	ND	10	14	140	Q	16	160	Q	70-130	13		20
1,2,4-Trichlorobenzene	ND	10	11	110		11	110		70-130	0		20
1,3,5-Trimethylbenzene	ND	10	9.5	95		9.8	98		64-130	3		20
1,2,4-Trimethylbenzene	ND	10	9.5	95		9.7	97		70-130	2		20
1,4-Dioxane	ND	500	830	166	Q	930	186	Q	56-162	11		20
p-Diethylbenzene	ND	10	9.0	90		9.3	93		70-130	3		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1730772

**Project Number:** 2158.0002Y004

**Report Date:** 09/07/17

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04,07-09 QC Batch ID: WG1039292-6 WG1039292-7 QC Sample: L1730772-04 Client ID: MW-3												
p-Ethyltoluene	ND	10	9.1	91		9.3	93		70-130	2		20
1,2,4,5-Tetramethylbenzene	ND	10	9.1	91		9.4	94		70-130	3		20
Ethyl ether	ND	10	12	120		12	120		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	9.1	91		9.6	96		70-130	5		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	102		101		70-130
4-Bromofluorobenzene	86		86		70-130
Dibromofluoromethane	106		108		70-130
Toluene-d8	89		88		70-130

**Project Name:** MARCUS GARVEY**Lab Number:** L1730772**Project Number:** 2158.0002Y004**Report Date:** 09/07/17**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1730772-01A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-01B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-01C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-02A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-02B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-02C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-03A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-03B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-03C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04D	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04E	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04F	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04G	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04H	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-04I	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-05A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-05B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-05C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-06A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-06B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

Serial\_No:09071715:17  
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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1730772-06C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-07A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-07B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-07C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-08A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-08B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-08C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-09A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-09B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-09C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-10A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)
L1730772-10B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260(14)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



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#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 09/07/17

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

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The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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For a complete listing of analytes and methods, please contact your Alpha Project Manager.

	<b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <u>2</u> of <u>2</u>	Date Rec'd in Lab <u>8-31-2017</u>	ALPHA Job # <u>L1730772</u>
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<p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>	<b>Project Information</b> Project Name: <u>MARCUS GARNEY</u> Project Location: <u>650 ROCKAWAY AV. BROOKLYN, NY</u> Project # <u>2158.0002/004</u> (Use Project name as Project #) <input type="checkbox"/>	<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> Other <input type="checkbox"/> ASP-B <input checked="" type="checkbox"/> EQulS (4 File)	<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #
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<b>Client Information</b> Client: <u>ROUX ASSOCIATES</u> Address: <u>209 SHAFTER ST. ISLANDIA, NY 11749</u> Phone: <u>631-2322600</u> Fax: <u>631-2329898</u> Email: <u>LCURNUOTTE@ROUXINC.COM</u>	Project Manager: <u>LEVI CURNUOTTE</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:	<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:
---	--	--	---

These samples have been previously analyzed by Alpha


Other project specific requirements/comments:

Please specify Metals or TAL.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	TCL VOCs (8/26)	ANALYSIS										Sample Specific Comments	Total Bottles			
		Date	Time																		
<u>30772-09</u>	<u>MW-5 S</u>	<u>8-31-17</u>	<u>0955</u>	<u>GW</u>	<u>AF</u>	<u>X</u>															
<u>10</u>	<u>TRIP BLANK</u>	<u>8-30-17</u>	<u>-</u>	<u>TB</u>	<u>CR</u>	<u>X</u>															

Preservative Code: A = None B = HCl C = HNO3 D = H2SO4 E = NaOH F = MeOH G = NaHSO4 H = Na2S2O3 K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type <u>V</u> Preservative <u>B</u>	<p>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS &amp; CONDITIONS. (See reverse side.)</p>	
		Relinquished By:	Date/Time	Received By:	Date/Time
		<u>Bonny Roux</u>	<u>8/31/17 14:15</u>	<u>Jan Hogenroth AAL</u>	<u>8/31/17 14:15</u>
		<u>Jan Hogenroth</u>	<u>8/31/17 14:20</u>	<u>MSK</u>	<u>8/31/17 17:50</u>
		<u>Jan Hogenroth</u>	<u>8/31 0700</u>	<u>CU</u>	<u>8/31/17 2230</u>



	<b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <b>1</b>	Date Rec'd in Lab <b>8-31-2017</b>	ALPHA Job # <b>L1730772</b>
			of <b>2</b>		

Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Project Information</b> Project Name: <b>MARCUS GARNEY</b> Project Location: <b>650 ROCKAWAY AV. BROOKLYN, NY</b> Project # <b>2158.0002Y004</b> (Use Project name as Project #) <input type="checkbox"/>	<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> Other	<b>Billing Information</b> <input type="checkbox"/> ASP-B <input checked="" type="checkbox"/> EQUIS (4 File) PO #
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<b>Client Information</b> Client: <b>ROUX ASSOCIATES</b> Address: <b>209 SHAFER ST. ISLAMIA, NY 11749</b> Phone: <b>631-2322600</b> Fax: <b>631-2329898</b> Email: <b>LCURNUTTE@ROUXINC.COM</b>	Project Manager: <b>LEVI CURNUTTE</b> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:	<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:
--	---	--	---

These samples have been previously analyzed by Alpha

Other project specific requirements/comments:

Please specify Metals or TAL.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	TCL VOCs (8760)	ANALYSIS										Sample Filtration	Total Bottle		
		Date	Time																	
30772-01	MW-8	8-31-17	0730	GW	MS	X														
-02	MW-9	8-31-17	0735	GW	AF	X														
-03	MW-2	8-31-17	0815	GW	MS	X														
-04	MW-3	8-31-17	0820	GW	AF	X														
-05	DUP-083117	8-31-17	0825	GW	AF	X														
04	MW-3-MS	8-31-17	0830	GW	AF	X														
04	MW-3-MSD	8-31-17	0835	GW	AF	X														
-06	FIELD BLANK-083117	8-31-17	0900	GW	AF	X														
-07	MW-1	8-31-17	0910	GW	AF	X														
-08	MW-6S	8-31-17	0930	GW	MS	X														

Sample Filtration:  Done,  Lab to do

Preservation:  Lab to do

(Please Specify below)

Sample Specific Comments

Westboro: Certification No: MA935  
 Mansfield: Certification No: MA015

Container Type: **V**

Preservative: **B**

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Relinquished By: **Jeanne Roux** Date/Time: **8/31/17 14:15**

Received By: **Joan Hoger** Date/Time: **8/31/17 14:15**

Relinquished By: **Joan Hoger** Date/Time: **8/31/17 14:20**

Received By: **Michael B** Date/Time: **8/31/17 22:00**

Relinquished By: **Michael B** Date/Time: **8/31/17 22:00**

Received By: **Ull** Date/Time: **8/31/17 22:00**

Form No: 01-25 HC (rev. 30-Sept-2013)

Field Sampling Sheets

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-1 Weather: 70°F, SUNNY

Date: 8/31/2017 Purge Water Disposal: 55 gal drums

Sampled By: ALFREDO F. Well Diameter / Type: 1" PVC

Depth to Product (ft): — Water Column (ft): —

Depth to Water(ft): 12.37 Volume of Water in Well (gal): —

Depth to Bottom (ft): 20.12 Volume of Water to Remove (gal): —

well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0842 Purge Rate: 100 mL/MIN

End Purging: — Volume of Water Removed (gal): 0.7 GAL

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/  
 Comments: CLEAR FROM START TO FINISH

Samples Collected: — VOCs (3 vials / HCl) —  
 (analyses / no. bottles)

Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0845	—	12.37	5.31	0.939	486	9.64	18.52	193
0848	—	12.37	5.32	0.923	43.9	9.55	18.43	191
0851	—	12.37	5.33	0.911	20.7	9.49	18.37	190
0854	—	12.37	5.34	0.902	13.2	9.38	18.36	189
0857	—	12.37	5.34	0.887	11.7	9.35	18.34	189
0900	—	12.37	5.34	0.885	10.0	9.31	18.31	188
0903	—	12.37	5.34	0.883	9.3	9.29	18.31	188
0906	—	12.37	5.34	0.883	9.1	9.26	18.30	187
0909	—	12.37	5.34	0.883	8.7	9.25	18.28	187

SAMPLE TIME: 0910



**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-2 Weather: Base ment

Date: 8/31/2017 Purge Water Disposal: 55 gal drums

Sampled By: MS Well Diameter / Type: pvc 1'

Depth to Product (ft): - Water Column (ft): \_\_\_\_\_

Depth to Water(ft): 12.31 Volume of Water in Well (gal) \_\_\_\_\_

Depth to Bottom (ft): 20.03 Volume of Water to Remove (gal): \_\_\_\_\_

well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0745 Purge Rate: 100 mL/min

End Purging: 0815 Volume of Water Removed (gal): \_\_\_\_\_

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/  
 Comments: purple

Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles)

Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0745	—	12.31	6.51	1.08	14.2	9.58	18.47	589
0748	—	↓	6.50	1.04	6.2	9.40	18.49	596
0751	—		6.50	1.07	4.0	9.36	18.50	597
0754	—		6.49	0.994	0.2	9.25	18.55	608
0757	—		6.48	0.988	0.0	9.23	18.54	611
0800	—		6.48	0.987	0.0	9.22	18.52	613
0805	—		6.48	0.987	0.0	9.21	18.51	612
0810	—		6.49	0.987	0.0	9.21	18.50	613
0815	—	12.31	6.48	0.986	0.0	9.20	18.50	614

ROUX ASSOCIATES, INC.

Sample time: 0815

Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-3 Weather: 67°F, SUNNY  
 Date: 8/31/2017 Purge Water Disposal: 55 gal drums  
 Sampled By: ALFREDO F. Well Diameter / Type: 1" PVC  
 Depth to Product (ft): — Water Column (ft): —  
 Depth to Water(ft): 12.16 Volume of Water in Well (gal): —  
 Depth to Bottom (ft): 20.05 Volume of Water to Remove (gal): —  
 well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0752 Purge Rate: 100 mL/MIN  
 End Purging: 0819 Volume of Water Removed (gal): 0.7  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/  
 Comments: CLEAR FROM START TO FINISH  
 Samples Collected: VOCs (3 vials / HCl) x 4  
 (analyses / no. bottles)  
 Duplicate Sample: YES (SEE BOTTOM OF PAGE) Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity µS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0755	—	12.16	5.21	0.680	85.6	9.79	17.97	176
0758	—	12.16	5.22	0.674	51.1	9.45	17.98	176
0801	—	12.16	5.23	0.709	46.9	9.26	17.89	178
0804	—	12.16	5.24	0.715	20.7	9.19	17.87	178
0807	—	12.16	5.25	0.723	10.5	9.16	17.86	178
0810	—	12.16	5.26	0.725	8.7	9.12	17.85	178
0813	—	12.16	5.27	0.729	7.9	9.09	17.83	178
0816	—	12.16	5.28	0.729	7.7	9.06	17.82	178
0819	—	12.16	5.28	0.730	7.1	9.02	17.81	178

SAMPLE TIME: 0820  
 DUP-083117 (TIME: 0825)  
 MW-3-MS (TIME: 0830)  
 MW-3-MSD (TIME: 0835)

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-55 Weather: 73°F, SUNNY

Date: 8/31/2017 Purge Water Disposal: 55 gal drums

Sampled By: ALFREDO F. Well Diameter / Type: 2" PVC

Depth to Product (ft): — Water Column (ft): —

Depth to Water(ft): 21.63 Volume of Water in Well (gal): —

Depth to Bottom (ft): 30.00 Volume of Water to Remove (gal): —

well diameter: 1 in 2 in 4 in 6 in 8 in

gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0926 Purge Rate: 100 mL/min

End Purging: 0953 Volume of Water Removed (gal): 0.7

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/  
Comments: CLEAR FROM START TO FINISH

Samples Collected: — VOCs (3 vials / HCl)

(analyses / no. bottles)

Duplicate Sample: — Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity ms/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0929	—	21.63	6.47	0.525	2.9	9.64	18.26	603
0932	—	21.63	6.48	0.527	1.3	9.30	18.32	591
0935	—	21.63	6.48	0.567	0	9.03	18.23	566
0938	—	21.63	6.48	0.543	0	8.97	18.31	563
0941	—	21.63	6.48	0.539	0	8.90	18.37	560
0944	—	21.63	6.48	0.531	0	8.89	18.39	558
0947	—	21.63	6.48	0.527	0	8.85	18.40	554
0950	—	21.63	6.48	0.526	0	8.84	18.42	553
0953	—	21.63	6.48	0.526	0	8.83	18.45	551

SAMPLE TIME: 0955

### Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-65 **Weather:** Sunny 70°F  
**Date:** 8/31/2017 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** MS **Well Diameter / Type:** 2" PVC  
**Depth to Product (ft):** - **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 21.05 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 30.00 **Volume of Water to Remove (gal):** \_\_\_\_\_  

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

**Start Purging:** 0900 **Purge Rate:** 100 mL/min  
**End Purging:** 0930 **Volume of Water Removed (gal):** \_\_\_\_\_  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** clear  
**Samples Collected:** VOCs (3 vials / HCl)  
**Duplicate Sample:** NO **Laboratory:** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity µmS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0900	-	21.05	6.46	0.348	0.6	8.99	19.52	596
0903	-	↓	6.45	0.347	2.7	8.92	19.47	583
0906	-	↓	6.44	0.346	4.3	8.93	19.73	574
0909	-	↓	6.44	0.336	4.6	8.95	19.39	561
0912	-	↓	6.43	0.334	4.8	8.93	19.46	557
0915	-	↓	6.43	0.333	4.9	8.91	19.54	552
0920	-	↓	6.43	0.335	5.0	8.89	19.62	547
0925	-	↓	6.43	0.334	5.1	8.87	19.63	545
0930	-	21.07	6.43	0.335	5.2	8.86	19.61	543

Sample time 0930



**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-8 Weather: Sunny 69°F

Date: 8/31/2017 Purge Water Disposal: 55 gal drums

Sampled By: MS Well Diameter / Type: PVC

Depth to Product (ft): - Water Column (ft): \_\_\_\_\_

Depth to Water(ft): 21.08 Volume of Water in Well (gal) \_\_\_\_\_

Depth to Bottom (ft): 28.68 Volume of Water to Remove (gal): ~ 2 GAL

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 0700 Purge Rate: 100 mL/min

End Purging: 0730 Volume of Water Removed (gal): \_\_\_\_\_

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/Comments: clear

Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)

(analyses / no. bottles)

Duplicate Sample: N/D Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity µS/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV	
0700	-	21.08	6.63	1.11	0.0	12.02	19.55	150	
0703	-	↓	6.64	1.11	0.0	10.42	19.59	152	
0706	-		6.64	1.11	0.0	9.82	19.38	154	
0709	-		6.64	1.11	0.0	9.65	19.32	154	
0712	-		6.64	1.11	0.0	9.58	19.30	155	
0715	-		6.64	1.11	0.1	9.49	19.31	155	
0720	-		6.64	1.11	0.2	9.45	19.30	155	
0725	-		6.64	1.11	0.0	9.40	19.32	155	
0730	-		21.10	6.64	1.11	0.0	9.39	19.34	155

Sample time 0730

Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-9 Weather: 67°F, SUNNY  
 Date: 8/31/2017 Purge Water Disposal: 55 gal drums  
 Sampled By: AFFERO F. Well Diameter / Type: 2" PVC  
 Depth to Product (ft): — Water Column (ft): \_\_\_\_\_  
 Depth to Water(ft): 21.82 Volume of Water in Well (gal) \_\_\_\_\_  
 Depth to Bottom (ft): 29.19 Volume of Water to Remove (gal): \_\_\_\_\_  
 well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0710 Purge Rate: 100 mL/MIN  
 End Purging: 0734 Volume of Water Removed (gal): 0.7  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/ Comments: LIGHT BROWN AT PURGE START, TURNS CLEAR AFTER 5 MIN.  
 Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles) \_\_\_\_\_  
 Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0713	—	21.82	5.33	1.03	252	10.36	18.70	165
0716	—	21.82	5.34	1.02	189	9.95	18.73	170
0719	—	21.82	5.34	1.01	156	9.71	18.72	171
0722	—	21.82	5.35	1.01	134	9.56	18.72	172
0725	—	21.82	5.35	1.01	130	9.49	18.73	172
0728	—	21.82	5.35	1.01	122	9.46	18.73	172
0731	—	21.82	5.35	1.01	116	9.42	18.75	172
0734	—	21.82	5.35	1.01	115	9.39	18.79	172

SAMPLE TIME: 0735

**NEW YORK CHAIN OF CUSTODY**  
 Mansfield, MA 02048  
 320 Forbes Blvd  
 TEL: 508-898-9220  
 FAX: 508-822-3288

**Service Centers**  
 Mahwah, NJ 07430: 35 Whitney Rd, Suite 5  
 Albany, NY 12205: 14 Walker Way  
 Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

ALPHA Job #

Westborough, MA 01581  
 8 Walkup Dr.  
 TEL: 508-898-9220  
 FAX: 508-898-9193

**Project Information**  
 Project Name: MARCUS GARNEY  
 Project Location: 650 ROCKAWAY AV. BROOKLYN, NY  
 Project # 2158-0002Y004

**Deliverables**  
 ASP-A  
 ASP-B  
 EQUIS (1 File)  
 EQUIS (4 File)  
 Other

**Billing Information**  
 Same as Client Info  
 PO #

**Client Information**  
 Client: ROUX ASSOCIATES  
 Address: 209 SHAFER ST.  
ISLAMA, NY 11749  
 Phone: 631-2322600  
 Fax: 631-2329898  
 Email: LCURNUTTE@ROUXIA.COM

(Use Project name as Project #)   
 Project Manager: LEVI CURNUTTE  
 ALPHA Quote #:  
 Turn-Around Time  
 Standard  Due Date:  
 Rush (only if pre approved)  # of Days:

**Regulatory Requirement**  
 NY TOGS  
 AWQ Standards  
 NY Part 375  
 NY CP-51  
 NY Restricted Use  
 NY Unrestricted Use  
 NYC Sewer Discharge

**Disposal Site Information**  
 Please identify below location of applicable disposal facilities.  
 Disposal Facility:  
 NJ  NY  
 Other:

These samples have been previously analyzed by Alpha   
 Other project specific requirements/comments:

**ANALYSIS**  
TCL VOCs (860)

**Sample Filtration**  
 Done  
 Lab to do  
 Preservation  
 Lab to do  
 (Please Specify below)  
 Sample Specific Comments

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

**Preservative Code:**  
 A = None  
 B = HCl  
 C = HNO<sub>3</sub>  
 D = H<sub>2</sub>SO<sub>4</sub>  
 E = NaOH  
 F = MeOH  
 G = NaHSO<sub>4</sub>  
 H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 I/E = Zn Ac/NaOH  
 O = Other

**Container Code:**  
 P = Plastic  
 A = Amber Glass  
 V = Vial  
 B = Bacteria Cup  
 C = Cube  
 O = Other  
 D = BOD Bottle

**Westboro: Certification No: MA935**  
**Mansfield: Certification No: MA015**

Relinquished By: Benj... Date/Time: 8/31/17 14:15  
 Received By: Jan... Date/Time: 8/31/17 14:15

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Container Type	Preservative	Date/Time
	MW-8	8-31-17	0730	GW	MS	V	B	
	MW-9	8-31-17	0735	GW	AF			
	MW-2	8-31-17	0815	GW	MS			
	MW-3	8-31-17	0820	GW	AF			
	DUP-083117	8-31-17	0825	GW	AF			
	MW-3-MS	8-31-17	0830	GW	AF			
	MW-3-MSD	8-31-17	0835	GW	AF			
	FIELD BLANK-083117	8-31-17	0900	GW	AF			
	MW-1	8-31-17	0910	GW	AF			
	MW-6S	8-31-17	0930	GW	MS			





Westborough, MA 01581  
8 Walkup Dr.  
TEL: 508-898-9220  
FAX: 508-898-9193

Service Centers  
Methuen, NJ 07430: 35 Whitney Rd, Suite 5  
Albany, NY 12205: 14 Walker Way  
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

ALPHA Job #

Client Information  
Client: ROUX ASSOCIATES  
Address: 209 SHAFER ST.  
ISLANDIA, NY 11749  
Phone: 631-2322600  
Fax: 631-2329898  
Email: ICUT@NUTTE@ROUXINC.COM

Project Information  
Project Name: MARCUS GARNEY  
Project Location: 650 ROCKAWAY AV. BROOKLYN, NY  
Project # 2158-0002004

Date Rec'd in Lab  
Billing Information  
 Same as Client Info  
PO #

Project Manager: LEVI CUPNUTTE  
ALPHA Quote #:  
Turn-Around Time  
Standard  Due Date:  
Rush (only if pre approved)  # of Days:

Regulatory Requirement  
 NY TOGS  
 AWQ Standards  
 NY Part 375  
 NY Restricted Use  
 NY CP-51  
 NY Unrestricted Use  
 Other  
 NYC Sewer Discharge

Disposal Site Information  
Please identify below location of applicable disposal facilities.  
Disposal Facility:  
 NJ  
 NY  
 Other:

These samples have been previously analyzed by Alpha

ANALYSIS

Sample Filtration  
 Done  
 Lab to do  
 Preservation  
 Lab to do  
(Please Specify below)  
Sample Specific Comments

Other project specific requirements/comments:

Sample ID  
MW-5 S  
TRIP BLANK

Collection Date Time  
8-31-17 0955  
8-30-17 --

Sample Matrix  
GW  
TB

Sampler's Initials  
AF  
CK

Sample Specific Comments  
3  
2

Container Code  
P = Plastic  
A = Amber Glass  
V = Vial  
G = Glass  
B = Bacteria Cup  
C = Cube  
O = Other  
E = Encore  
D = BOD Bottle  
K/E = Zn Ac/NaOH  
O = Other

Westboro: Certification No: MA935  
Mansfield: Certification No: MA015

Container Type  
Preservative  
Received By: [Signature]  
Date/Time: 8/31/17 14:15

Relinquished By: [Signature]

Received By: [Signature]

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)



**REMEDIAL ENGINEERING, P.C.**  
**ENVIRONMENTAL ENGINEERS**

209 SHAFTER STREET  
ISLANDIA, NEW YORK 11749  
TEL: 631-232-2600  
FAX: 631 232-9898

January 11, 2017

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: December 7, 2017 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Associates, Inc. and Remedial Engineering, P.C. (collectively referred to as Roux Associates) conducted quarterly groundwater sampling on behalf of Marcus Garvey Apartments LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs), primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis-1,2-dichloroethene (1,2-DCE). The remedy for the Site included removal of source material soil and implementation of *in situ* potassium permanganate injections completed in July and August 2016, respectively.

As per the SMP, the Site monitoring and sampling plan includes groundwater monitoring for a total of eight rounds after the remedial injections were completed. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. The original monitoring network defined in the SMP included on-Site groundwater monitoring wells MW-1, MW-2, and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9, as shown on Plate 1.

On November 21, 2017, New York State Department of Environmental Conservation (NYSDEC) approved a modification to the Site groundwater monitoring plan. As a result of the COCs being low to non-detect for five consecutive quarterly sampling rounds in the wells MW-3 and MW-5S, respectively, NYSDEC agreed that these wells did not require sampling during the December 2017 sampling round. Roux will resume sampling these

wells in the first quarter of 2018. In addition, the permanent removal of the upgradient monitoring well MW-6S from the long-term monitoring network was approved because COCs were not observed for five consecutive quarters. As requested by NYSDEC, MW-6S will remain in place until further notice.

Groundwater sampling for the fourth quarter of 2017 was conducted on December 7, 2017 by Roux Associates at four monitoring wells MW-1, MW-2, MW-8, and MW-9. This was the fifth post-remediation sampling round completed out of eight rounds. Wells were successfully sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for volatile organic compounds (VOCs).

The analytical report from Alpha Laboratories (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux Associates' January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and all quarterly post-remediation sampling events to date. Plate 1 presents the sample results over time. Plate 1 includes only those parameters with at least one exceedance of AWQSGVs at a particular well.

No on-Site or off-Site wells exceeded NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs) for the COC TCE and no detections of 1,2-DCE were observed in the December 2017 sampling round. The trends in the PCE concentrations observed in on-Site and off-Site monitoring wells with time are summarized below.

#### PCE Trends in On-Site Monitoring Wells

The highest concentration of PCE in on-Site monitoring wells was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW-2. Results from MW-2 from the December 2017 sampling event show that the PCE concentration was 5 ppb, which does not exceed the NYSDEC AWQSGV of 5 ppb and corresponds to a reduction of over 99%. At well MW-1, the concentration of PCE was detected at 3,200 ppb in August 2014. PCE was detected at 16 ppb in well MW-1 during the December 2017 sampling event, also corresponding to a greater than a 99% reduction.

#### PCE Trends in Off-Site Monitoring Wells

MW-8 is the off-Site well located closest to where *in situ* injections were completed at the Site. PCE at MW-8 was detected at 20 ppb, which corresponds to a greater than an 85% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was also detected at 20 ppb, identical to the PCE concentration detected during baseline sampling (20 ppb). Due to the distance of MW-9 from the injections area, significant influence was not expected at this well.

The data presented in this report demonstrates that the remedial actions implemented at the Site continue to be effective. As outlined in the SMP for the Site, Roux Associates will continue to perform quarterly sampling during the first quarter of 2018, including wells MW-3 and MW-5S, and submit subsequent groundwater sampling event notifications.

Stephen G. Malsan, P.E.

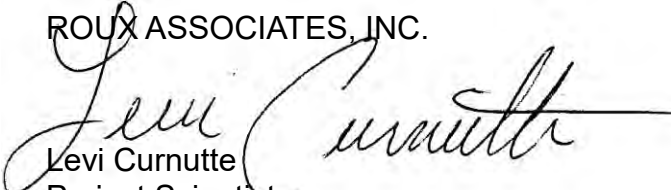
January 11, 2018

Page 3

Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at 631-232-2600, if you have questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.



Levi Curnutte  
Project Scientist

REMEDIAL ENGINEERING, P.C.



Noelle M. Clarke, P.E.

Principal Engineer

Attachments

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Normal or Field Duplicate:				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				N	N	FD	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	75 UD	3.8 U	3 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	620 U	500 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
Acetone	--	50	µg/L	250 UD	12 U	10 U	4.2 J	2.6 J	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Normal or Field Duplicate:				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				N	N	FD	N	N	N
Acrylonitrile	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Benzene	1	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U	0.5 U
Bromoform	--	50	µg/L	100 UD	5 U	4 U	2 U	2 U	2 U
Bromomethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	120 UD	6.4	6.8	4.7	2.5 U	2.5 U
Chloromethane	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Normal or Field Duplicate:				8/20/2014	7/14/2016	7/14/2016	8/18/2016	02/28/2017	06/13/2017
				N	N	FD	N	N	N
N-Propylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	<b>78</b>
Toluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	0.72
Trichlorofluoromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-2	MW-2	MW-2	MW-2
Normal or Field Duplicate:				8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				N	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	150 UD	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	2.0 U	200 UD	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	2.0 U	200 UD	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1.0 U	1.0 U	100 UD	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	0.50 U	50 UD	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	2.0 U	200 UD	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	25000 UD	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2.0 U	2.0 U	200 UD	2 U	2 U	2 U
Acetone	--	50	µg/L	5.0 U	5.0 U	500 UD	5 U	<b>200</b>	16

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-2	MW-2	MW-2	MW-2
				8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
Normal or Field Duplicate:				N	N	N	N	N	N
Acrylonitrile	5	--	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Benzene	1	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2.0 U	2.0 U	200 UD	2 U	2.1	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.1 J	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	5.0 U	500 UD	5 U	8.7	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-1	MW-1	MW-2	MW-2	MW-2	MW-2
Normal or Field Duplicate:				8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016	02/28/2017
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>31</b>	<b>16</b>	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	NA	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.48 J	0.31 J	<b>110 D</b>	0.49 J	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5.0 U	5.0 U	500 UD	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1.0 U	1.0 U	100 UD	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	250 UD	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				06/13/2017	8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016
Normal or Field Duplicate:				N	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	75 UD	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2.0 U	2.0 U	100 UD	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2.0 U	2.0 U	100 UD	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1.0 U	1.0 U	50 UD	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	0.50 U	0.50 U	25 UD	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2.0 U	2.0 U	100 UD	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	12000 UD	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2.0 U	2.0 U	100 UD	2 U	2 U
Acetone	--	50	µg/L	5.2	12	5.9	250 UD	5 U	<b>58</b>

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				06/13/2017	8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016
Normal or Field Duplicate:				N	N	N	N	N	N
Acrylonitrile	5	--	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	1.0 J	2.0 U	100 UD	2 U	1.6 J
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	0.97 J	2.5 U	120 UD	2.5 U	1.5 J
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	3.9 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
				06/13/2017	8/31/2017	12/7/2017	8/20/2014	7/14/2016	8/18/2016
Normal or Field Duplicate:				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>11</b>	3.8	5	<b>2700 D</b>	<b>32</b>	0.5 U
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	NA	NA	NA	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.50 U	0.50 U	25 UD	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.50 U	0.50 U	<b>28 D</b>	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5.0 U	5.0 U	250 UD	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1.0 U	1.0 U	50 UD	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-5S	MW-5S
				Sample Date:	02/28/2017	06/13/2017	8/31/2017	8/31/2017	8/19/2014	8/19/2014
				Normal or Field Duplicate:	N	N	N	FD	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				MW-3	MW-3	MW-3	MW-3	MW-5S	MW-5S
				02/28/2017	06/13/2017	8/31/2017	8/31/2017	8/19/2014	8/19/2014
Normal or Field Duplicate:				N	N	N	FD	N	FD
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				MW-3	MW-3	MW-3	MW-3	MW-5S	MW-5S
				02/28/2017	06/13/2017	8/31/2017	8/31/2017	8/19/2014	8/19/2014
Normal or Field Duplicate:				N	N	N	FD	N	FD
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	4.2	2.8	3.3	3	0.54	0.54
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	NA	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	8/18/2014
				N	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Acetone	--	50	µg/L	1.6 J	5 U	5 U	11	5.0 U	5.0 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	8/18/2014
				N	N	N	N	N	N
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.77	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	9.8	2.6	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	8/18/2014
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	1	0.82	0.25 J	0.5 U	0.50 U	<b>7.2</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	7/14/2016
				N	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	4 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	4 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	2 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	0.50 U	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	4 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	500 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	4 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	7/14/2016
				N	N	N	N	N	N
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2.0 U	4 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.4 J
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.4 J
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
Normal or Field Duplicate:				7/14/2016	8/18/2016	02/28/2017	06/13/2017	8/31/2017	7/14/2016
				N	N	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	3.4	1.8	0.5 U	0.5 U	0.24 J	<b>140</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	1 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	1 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	2.9
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	10 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	2 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	8/18/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				Normal or Field Duplicate:	N	FD	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
Normal or Field Duplicate:				8/18/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				N	FD	N	N	N	N
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	1.9	1.9	0.5 U	0.5 U	0.50 U	0.50 U
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	<b>19</b>	<b>19</b>	1.1 J	2.5 U	2.5 U	0.78 J
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2 J	2 J	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichloroethylenes	5	--	µg/L	2 J	2 J	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:					
				Sample Date:					
				MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
Normal or Field Duplicate:				8/18/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				N	FD	N	N	N	N
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>140</b>	<b>140</b>	<b>36</b>	<b>22</b>	<b>20</b>	<b>20</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	2.8	2.8	0.9	0.49 J	0.52	0.52
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:					
				MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:					
				7/14/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				Normal or Field Duplicate:					
				N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 U	250 U	250 U	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	7/14/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2 U	2.0 U	2.0 U
Bromomethane	5	--	µg/L	2.5 U	0.71 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	0.84 J	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater, Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	7/14/2016	8/18/2016	2/28/2017	6/13/2017	8/31/2017	12/7/2017
				Normal or Field Duplicate:	N	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units							
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>20</b>	<b>24</b>	<b>35</b>	<b>33</b>	<b>12</b>	<b>20</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.61	0.79	0.75	0.64	0.45 J	0.45 J	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	5.0 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Quarterly Groundwater Sampling Event Summary – December 7, 2017**  
***Site Management Plan Groundwater Monitoring Program***

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**ATTACHMENT 1**

Laboratory Analytical Report



## ANALYTICAL REPORT

Lab Number:	L1745053
Client:	Roux Associates, Inc. 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	12/12/17

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1745053-01	MW-8	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 07:30	12/07/17
L1745053-02	MW-9	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 07:55	12/07/17
L1745053-03	MW-1	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 09:00	12/07/17
L1745053-04	MW-2	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 10:00	12/07/17
L1745053-05	TRIP BLANK	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/05/17 00:00	12/07/17

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kara Soroko

Title: Technical Director/Representative

Date: 12/12/17



# ORGANICS

# VOLATILES

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-01  
**Client ID:** MW-8  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/07/17 07:30  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 12/12/17 00:17  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.78	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	20		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.52		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

## SAMPLE RESULTS

Lab ID: L1745053-01

Date Collected: 12/07/17 07:30

Client ID: MW-8

Date Received: 12/07/17

Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

Lab ID: L1745053-01  
 Client ID: MW-8  
 Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Date Collected: 12/07/17 07:30  
 Date Received: 12/07/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	89		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-02  
**Client ID:** MW-9  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/07/17 07:55  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 12/12/17 00:45  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	20		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.45	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

## SAMPLE RESULTS

Lab ID: L1745053-02

Date Collected: 12/07/17 07:55

Client ID: MW-9

Date Received: 12/07/17

Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

Lab ID: L1745053-02  
 Client ID: MW-9  
 Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Date Collected: 12/07/17 07:55  
 Date Received: 12/07/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	90		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-03  
**Client ID:** MW-1  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/07/17 09:00  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 12/12/17 01:12  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	16		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.31	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

## SAMPLE RESULTS

Lab ID: L1745053-03

Date Collected: 12/07/17 09:00

Client ID: MW-1

Date Received: 12/07/17

Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-03  
**Client ID:** MW-1  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/07/17 09:00  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	90		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-04  
**Client ID:** MW-2  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/07/17 10:00  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 12/12/17 01:40  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	5.0		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

## SAMPLE RESULTS

Lab ID: L1745053-04

Date Collected: 12/07/17 10:00

Client ID: MW-2

Date Received: 12/07/17

Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.9		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

Lab ID: L1745053-04  
 Client ID: MW-2  
 Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Date Collected: 12/07/17 10:00  
 Date Received: 12/07/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	89		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

**Lab ID:** L1745053-05  
**Client ID:** TRIP BLANK  
**Sample Location:** 650 ROCKAWAY AVE., BROOKLYN, NY

**Date Collected:** 12/05/17 00:00  
**Date Received:** 12/07/17  
**Field Prep:** Not Specified

**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 12/11/17 23:50  
**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

## SAMPLE RESULTS

Lab ID: L1745053-05

Date Collected: 12/05/17 00:00

Client ID: TRIP BLANK

Date Received: 12/07/17

Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**SAMPLE RESULTS**

Lab ID: L1745053-05  
 Client ID: TRIP BLANK  
 Sample Location: 650 ROCKAWAY AVE., BROOKLYN, NY

Date Collected: 12/05/17 00:00  
 Date Received: 12/07/17  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	90		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/11/17 20:36  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1071691-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/11/17 20:36  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1071691-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/11/17 20:36  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1071691-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	117		70-130
Dibromofluoromethane	90		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1071691-3 WG1071691-4								
Methylene chloride	90		92		70-130	2		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	90		93		70-130	3		20
Carbon tetrachloride	89		92		63-132	3		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	85		88		63-130	3		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	85		87		70-130	2		20
Chlorobenzene	94		96		75-130	2		20
Trichlorofluoromethane	93		97		62-150	4		20
1,2-Dichloroethane	95		96		70-130	1		20
1,1,1-Trichloroethane	85		88		67-130	3		20
Bromodichloromethane	83		84		67-130	1		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	87		91		70-130	4		20
1,1-Dichloropropene	94		97		70-130	3		20
Bromoform	56		58		54-136	4		20
1,1,1,2,2-Tetrachloroethane	110		120		67-130	9		20
Benzene	100		100		70-130	0		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	120		120		64-130	0		20
Bromomethane	31	Q	32	Q	39-139	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1071691-3 WG1071691-4								
Vinyl chloride	99		100		55-140	1		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	91		97		61-145	6		20
trans-1,2-Dichloroethene	87		90		70-130	3		20
Trichloroethene	90		94		70-130	4		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	81		87		63-130	7		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	86		87		70-130	1		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	120		120		64-130	0		20
Acrylonitrile	120		130		70-130	8		20
Styrene	46	Q	49	Q	70-130	6		20
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	100		110		58-148	10		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	110		120		63-138	9		20
Vinyl acetate	100		110		70-130	10		20
4-Methyl-2-pentanone	99		110		59-130	11		20
2-Hexanone	110		130		57-130	17		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1071691-3 WG1071691-4								
Bromochloromethane	84		86		70-130	2		20
2,2-Dichloropropane	94		97		63-133	3		20
1,2-Dibromoethane	89		92		70-130	3		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	90		92		64-130	2		20
Bromobenzene	98		100		70-130	2		20
n-Butylbenzene	120		120		53-136	0		20
sec-Butylbenzene	110		120		70-130	9		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	120		120		70-130	0		20
1,2-Dibromo-3-chloropropane	80		89		41-144	11		20
Hexachlorobutadiene	70		69		63-130	1		20
Isopropylbenzene	110		120		70-130	9		20
p-Isopropyltoluene	110		120		70-130	9		20
Naphthalene	88		95		70-130	8		20
n-Propylbenzene	120		120		69-130	0		20
1,2,3-Trichlorobenzene	78		80		70-130	3		20
1,2,4-Trichlorobenzene	82		84		70-130	2		20
1,3,5-Trimethylbenzene	120		120		64-130	0		20
1,2,4-Trimethylbenzene	140	Q	140	Q	70-130	0		20
1,4-Dioxane	98		110		56-162	12		20
p-Diethylbenzene	110		110		70-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1745053

Project Number: 2158.0002Y004

Report Date: 12/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1071691-3 WG1071691-4								
p-Ethyltoluene	120		120		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20
Ethyl ether	86		95		59-134	10		20
trans-1,4-Dichloro-2-butene	73		85		70-130	15		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		102		70-130
Toluene-d8	110		108		70-130
4-Bromofluorobenzene	113		114		70-130
Dibromofluoromethane	89		91		70-130



**Project Name:** MARCUS GARVEY**Lab Number:** L1745053**Project Number:** 2158.0002Y004**Report Date:** 12/12/17**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1745053-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-02A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-02B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-02C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-03A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-03B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-03C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-04A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-04B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-04C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-05A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1745053-05B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1745053  
**Report Date:** 12/12/17

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** NPW and SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**EPA 9012B:** NPW: Total Cyanide

**EPA 9050A:** NPW: Specific Conductance

**SM3500:** NPW: Ferrous Iron

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**SM5310C:** DW: Dissolved Organic Carbon

### Mansfield Facility

**SM 2540D:** TSS

**EPA 3005A** NPW

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

#### Non-Potable Water


**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 12/7/17	ALPHA Job # 1745053																																																																																																																																										
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-8220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Project Information</b> Project Name: <u>MARCUS GARVEY</u> Project Location: <u>650 ROCKAWAY AV. BROOKLYN NY</u> Project # <u>2158.00027004</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUiS (1 File) <input checked="" type="checkbox"/> EQUiS (4 File) <input type="checkbox"/> Other																																																																																																																																									
<b>Client Information</b> Client: <u>ROUX ASSOCIATES</u> Address: <u>209 SHAFER ST. ISLANDIA, NY 11749</u> Phone: <u>631-2322600</u> Fax: <u>631-2329898</u> Email: <u>LCURNUITE@ROUXINC.COM</u>		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #																																																																																																																																										
<b>Project Manager:</b> <u>LEVI CURNUITE</u> <b>ALPHAQuote #:</b> <b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																																												
These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/> Other project specific requirements/comments:		<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below)																																																																																																																																										
Please specify Metals or TAL.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">TCL</th> <th rowspan="2">VOCs</th> <th rowspan="2">S</th> <th rowspan="2">P</th> <th rowspan="2">M</th> <th rowspan="2">D</th> <th rowspan="2">O</th> <th rowspan="2">A</th> <th rowspan="2">B</th> <th rowspan="2">C</th> <th rowspan="2">E</th> <th rowspan="2">H</th> <th rowspan="2">K/E</th> <th rowspan="2">O</th> <th rowspan="2">Sample Specific Comments</th> <th rowspan="2">Total</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> <tr> <td>45053-01</td> <td>MW-8</td> <td>12-7-17</td> <td>0730</td> <td>GW</td> <td>MS</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> </tr> <tr> <td>02</td> <td>MW-9</td> <td>12-7-17</td> <td>0755</td> <td>GW</td> <td>AF</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> </tr> <tr> <td>03</td> <td>MW-1</td> <td>12-7-17</td> <td>0900</td> <td>GW</td> <td>MS</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> </tr> <tr> <td>04</td> <td>MW-2</td> <td>12-7-17</td> <td>1000</td> <td>GW</td> <td>MS</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3</td> </tr> <tr> <td>05</td> <td>TRIP BLANK</td> <td>12-5-17</td> <td>-</td> <td>LAB</td> <td>KS</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> </tr> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	TCL	VOCs	S	P	M	D	O	A	B	C	E	H	K/E	O	Sample Specific Comments	Total	Date	Time	45053-01	MW-8	12-7-17	0730	GW	MS	X																3	02	MW-9	12-7-17	0755	GW	AF	X																3	03	MW-1	12-7-17	0900	GW	MS	X																3	04	MW-2	12-7-17	1000	GW	MS	X																3	05	TRIP BLANK	12-5-17	-	LAB	KS	X																2
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Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>V</u> Preservative <u>B</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																																																																						
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**Quarterly Groundwater Sampling Event Summary – December 7, 2017**  
***Site Management Plan Groundwater Monitoring Program***

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**ATTACHMENT 2**

Groundwater Sampling Forms

**SITE NAME:** Marcus Garvey

**Project Number:** 2158.0002Y003

Weather: Basement  
 Well ID: MW-1  
 DTW: 12.96  
 DTB: 20.12  
 Sampler: Michael Sarn / Alfredo Fernandez  
 Purge Start: 0820  
 Purge Water: clear  
 Description: clear

Date: 12/7/2017  
 Intake depth: \_\_\_\_\_  
 Vol Purged: ~ 26 Gallons  
 Purge End Time: 0900

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/ - 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/ - 10%)
0820	12.96	100	17.22	1.00	9.57	7.09	207	100
0823	↓	↓	17.40	0.986	9.46	7.1	209	98.4
0826	↓	↓	17.52	0.979	9.40	7.09	208	96.6
0829	↓	↓	17.62	0.948	9.67	7.09	209	78.0
0832	↓	↓	17.65	0.962	9.67	7.09	210	72.8
0835	↓	↓	17.70	0.976	9.67	7.10	211	64.5
0840	↓	↓	17.73	0.979	9.63	7.11	211	55.2
0845	↓	↓	17.78	0.983	9.60	7.11	211	43.7
0850	↓	↓	17.77	0.985	9.58	7.11	211	41.1
0855	↓	↓	17.77	0.987	9.58	7.12	212	39.3
0900			17.72	0.989	9.57	7.12	212	37.8

LEL-0  
 CO-0  
 VOC-0  
 H2S-6

Sample time: 0900



SITE NAME: Marcus Garvey

Project Number: 2158.0002Y003

Weather: Basement Date: 12/7/2017

Well ID: mw-2 Intake depth: \_\_\_\_\_

DTW: 12.92 Vol Purged: 2.2 GALLONS

DTB: \_\_\_\_\_

Sampler: Michael Sarniv / Alfredo Fernandez

Purge Start: 0910 Purge End Time: 1000

Purge Water Description: purple -> Lt Purple

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0910	12.92	100	17.16	0.811	9.37	7.08	547	45.6
0915	12.92	↓	17.14	0.816	9.38	7.08	550	37.4
0920	12.92	↓	17.18	0.821	9.37	7.08	556	29.0
0925	↓	↓	17.19	0.824	9.35	7.08	560	17.1
0930	↓	↓	17.18	0.827	9.33	7.09	566	10.9
0935	↓	↓	17.20	0.831	9.29	7.09	569	8.4
0940	↓	↓	17.23	0.834	9.26	7.09	574	7.5
0945	↓	↓	17.22	0.835	9.25	7.09	576	7.4
0950	↓	↓	17.22	0.836	9.24	7.09	577	7.2
0955	↓	↓	17.23	0.837	9.24	7.09	577	7.4
1000	↓	↓	17.23	0.837	9.23	7.09	578	7.3

LEL - 0  
CO - 0  
NO - 0  
H2S - 0

Sample : 1000

02-20.9

SITE NAME: Marcus Garvey

Project Number: 2158.0002Y003

Weather: 40°F

Date: 12/7/2017

Well ID: MV-8

Intake depth: \_\_\_\_\_

DTW: 21.66

Vol Purged: ~1.2 Gallons

DTB: 28.69

Sampler: Michael Sarny / Alfredo Fernandez

Purge Start: 0700

Purge End Time: 0730

Purge Water: \_\_\_\_\_

Description: clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0700	21.65	100	17.10	1.09	11.83	6.15	174	42.1
0703	21.66	100	16.65	1.07	9.53	6.19	179	25.6
0706	21.66	100	16.41	1.16	9.02	6.23	184	18.6
0709	21.66	100	16.37	1.11	8.92	6.24	185	19.0
0712	21.66	100	16.35	1.11	8.89	6.25	186	18.7
0715	21.66	100	16.33	1.12	8.87	6.26	186	17.9
0720	21.66	100	16.34	1.12	8.81	6.26	187	18.3
0725	21.66	100	16.32	1.12	8.83	6.26	188	18.6
0730	21.66	100	16.30	1.12	8.84	6.26	189	18.8

sample = 730

**SITE NAME:**

Marcus Garvey

**Project Number:**

2158.0002Y003

Weather:

39°F, SUNNY

Date: 12/7/2017

Well ID:

MW-9

Intake depth:

~25'

DTW:

22.42

Vol Purged:

0.75 GAL

DTB:

29.19

Sampler:

Michael Sami / Alfredo Fernandez

Purge Start:

0724

Purge End Time:

0751

Purge Water:

Description:

LIGHT GRAY AT START, TURNS CLEAR AFTER 5 MIN.

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
0727	22.42	100	16.96	1.15	11.22	7.08	190	42.6
0730	22.42	100	17.05	1.15	10.91	7.07	193	31.4
0733	22.42	100	17.06	1.14	10.80	7.07	194	19.4
0736	22.42	100	17.12	1.13	10.74	7.07	194	18.7
0739	22.42	100	17.14	1.12	10.67	7.07	195	16.2
0742	22.42	100	17.17	1.12	10.62	7.06	195	14.3
0745	22.42	100	17.19	1.12	10.58	7.06	195	12.9
0748	22.42	100	17.22	1.11	10.55	7.06	195	12.5
0751	22.42	100	17.23	1.11	10.53	7.06	195	11.8

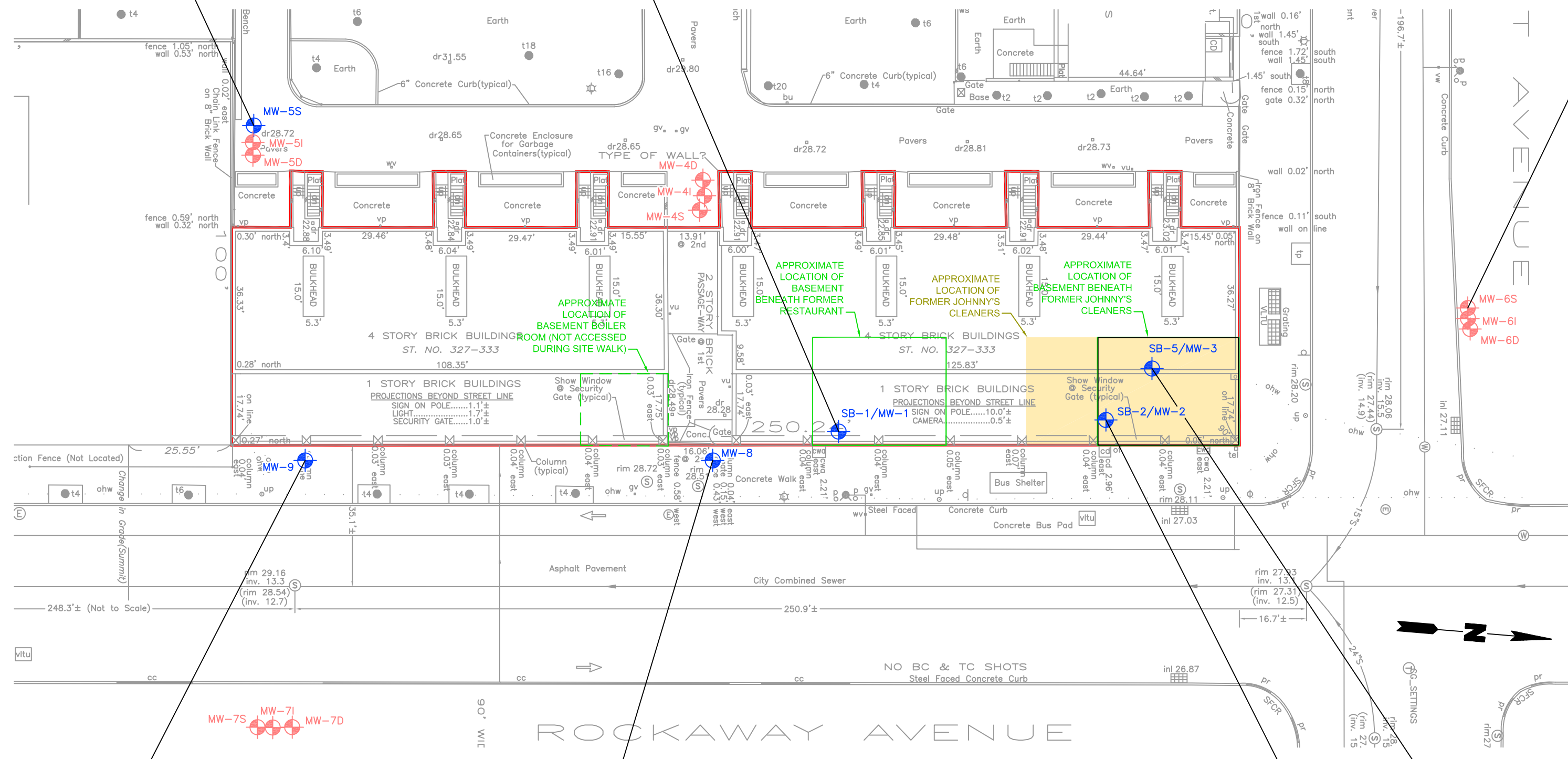
SAMPLE TIME: 0755



MW-5S	8/19/14	8/19/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
VOCs		DUP					
Chloroform	ND	ND	9.8	NE	ND	ND	ND

MW-1	8/20/14	7/14/16	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17
VOCs			DUP					
Cis-1,2-Dichloroethylene	60 JD	NE	NE	ND	ND	ND	ND	ND
Dichloroethylenes	60 JD	NE	NE	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	3200 D	220	240	110	62	78	31	16
Trichloroethylene (TCE)	40 D	NE	NE	ND	NE	NE	NE	NE

MW-6S	8/18/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
VOCs						
Tetrachloroethylene (PCE)	7.2	NE	NE	ND	ND	NE



MW-9	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17
VOCs						
Tetrachloroethylene (PCE)	20	24	35	33	12	20

MW-8	7/14/16	8/18/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17
VOCs			DUP				
Chloroform	12	19	19	NE	ND	ND	NE
Tetrachloroethylene (PCE)	140	140	140	36	22	20	20

MW-2	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17
VOCs							
Acetone	ND	ND	200	NE	NE	NE	NE
Cis-1,2-Dichloroethylene	190 JD	ND	ND	ND	ND	ND	ND
Dichloroethylenes	190 JD	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	7700 D	49	NE	9.1	11	NE	NE
Trichloroethylene (TCE)	110 D	NE	NE	ND	ND	ND	ND

MW-3	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
VOCs						DUP
Acetone	ND	ND	58	ND	ND	ND
Tetrachloroethylene (PCE)	2700 D	32	ND	NE	NE	NE
Trichloroethylene (TCE)	28 D	ND	ND	ND	ND	ND

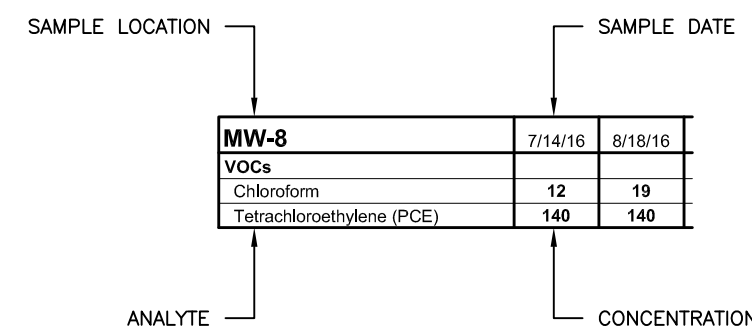
LEGEND

- MW-4 LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
- MW-1 LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
- BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
- APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
- APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

NOTES

1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
2. WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-6S, MW-8 AND MW-9.
3. ON NOVEMBER 21, 2017, NYSDEC APPROVED THE REMOVAL OF MW-6S FROM THE LONG-TERM SITE MONITORING NETWORK.

DATA BOX KEY



- µg/L - MICROGRAMS PER LITER
- \* - NYSDEC AWQSGVS
- NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- AWQSGVS - AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
- D - DILUTION
- J - ESTIMATED VALUE
- DUP - DUPLICATE SAMPLE
- VOCs - VOLATILE ORGANIC COMPOUNDS
- ND - NO DETECTION
- NE - NO EXCEEDANCES

Parameter	Standards* (µg/L)
VOCs	
Acetone	50
Chloroform	7
Cis-1,2-Dichloroethylene	5
Dichloroethylenes	5
Tetrachloroethylene (PCE)	5
Trichloroethylene (TCE)	5

CONCENTRATIONS IN µg/L



Title: **EXCEEDANCES OF AWQSGVs IN GROUNDWATER**

MARCUS GARVEY APARTMENTS  
650 ROCKAWAY AVE., BROOKLYN, NY

Prepared For: **C+C APARTMENT MANAGEMENT LLC**

	Compiled by: L.C.	Date: 14JAN18	PLATE
	Prepared by: G.M.	Scale: AS SHOWN	<b>1</b>
	Project Mgr: N.C.	Project: 2158.0002Y004	
	File: 2158.0002Y156.01.DWG		

April 24, 2018

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: March 15, 2018 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Environmental Engineering and Geology, D.P.C. (Roux) conducted quarterly groundwater sampling on behalf of Marcus Garvey Apartments LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs), primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis 1,2-dichloroethene (1,2-DCE). The remedy for the Site included the removal of source material soil and implementation of *in situ* potassium permanganate injections completed in July and August 2016, respectively.

As per the SMP, the Site monitoring and sampling plan includes groundwater monitoring for a total of seven rounds after the certificate of completion was issued for the Site. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. The original monitoring network defined in the SMP included on-Site groundwater monitoring wells MW-1, MW-2, and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9, as shown on Plate 1. On November 21, 2017, NYSDEC approved to permanent removal of well MW-6S from the monitoring network (though the well remains in place).

Groundwater sampling for the first quarter of 2018 was conducted on March 15, 2018 by Roux at six monitoring wells; MW-1, MW-2, MW-3, MW-5S, MW-8 and MW-9. This was the sixth post-remediation sampling round completed and fifth after the issuance of the Site certificate of completion. Wells were successfully sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for volatile organic compounds (VOCs).

The analytical report from Alpha Analytical (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and all post-remediation sampling events to date. Plate 1 presents the sample results over time. Plate 1 includes only those parameters with at least one exceedance of New York State Department

of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1.) Ambient Water Quality Standards and Guidance Values (AWQSGVs) at a particular well.

No on-Site or off-Site wells exceeded AWQSGVs for the COC TCE and no detections of 1,2-DCE were observed in the March 2018 sampling round. The trends in the PCE concentrations observed in on-Site and off-Site monitoring wells with time are summarized below.

#### **PCE Trends in On-Site Monitoring Wells**

All on-Site monitoring wells continue to exhibit over a 99% reduction when compared to their 2014 samples. The highest concentration of PCE in on-Site monitoring wells was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW 2. Results from MW-2 from the March 2018 sampling event show that the PCE concentration was 5.3 ppb, which is slightly above the NYSDEC AWQSGV of 5 ppb. At well MW 1, the concentration of PCE was detected at 3,200 ppb in August 2014 and PCE was detected at 18 ppb in well MW 1 during the March 2018 sampling event. MW-3 has been non-detect or below AWQSGVs for PCE for all post-injection samples.

#### **PCE Trends in Off-Site Monitoring Wells**

MW-5S was non-detect for VOCs in groundwater for the fourth consecutive round (with NYSDEC's approval, MW-5S was not Sampled in December 2017). MW 8 is the off-Site well located closest to where *in situ* injections were completed at the Site. In March 2018 PCE was detected at MW 8 at 17 ppb, which corresponds to a greater than an 87% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW 9 is farther downgradient and PCE was detected at 13 ppb during the March 2018 sampling event, which is below the PCE concentration detected during the July 2016 baseline sampling (20 ppb). Due to the distance of MW 9 from the injections area, significant influence was not expected at this well, however, concentrations remain low.

#### **Request to Terminate Groundwater Sampling Program**

As mentioned above, on November 21, 2017, NYSDEC approved a modification to the Site groundwater monitoring plan, permanently removing MW-6S from the network. In addition, as a result of the COCs being consistently low to non-detect in the wells MW-3 and MW-5S, NYSDEC agreed that these wells did not require sampling during the December 2017 sampling round. Roux resumed sampling these wells in the first quarter of 2018, as requested by NYSDEC.

The data presented in this report demonstrates that the remedial actions implemented at the Site were effective. At the off-Site wells MW-8 and MW-9 PCE concentrations remain only slightly above NYSDEC AWQSGVs. In addition, concentrations of COCs in all on-Site monitoring wells have exhibited reductions of at least 96% in all post-remediation samples beginning in August 2016. Due to the consistently low to non-detect concentrations of the COCs in groundwater monitoring wells across the Site, Marcus Garvey Preservation LLC respectfully requests that the Site groundwater sampling program be terminated at this time. This request will also be included in the 2018 Periodic Review Report. In accordance with the SMP, we will await formal approval of this request from NYSDEC before implementing any changes.

Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at 631-232-2600, if you have questions or require additional information.

Stephen G. Malsan, P.E.  
April 24, 2018  
Page 3

Sincerely,

**ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.**



Levi Curnutte  
Project Scientist/Project Manager



Noelle M. Clarke, P.E.  
Principal Engineer

Attachments

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**TABLE**

1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
Normal or Field Duplicate:				N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	75 UD	3.8 U	3 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	620 RV	500 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U
Acetone	--	50	µg/L	250 UD	12 U	10 U	4.2 J	2.6 J
Acrylonitrile	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U
Benzene	1	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
Normal or Field Duplicate:				N	N	FD	N	N
Bromochloromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U
Bromoform	--	50	µg/L	100 UD	5 U	4 U	2 U	2 U
Bromomethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	250 UD	12 U	10 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	120 UD	6.4	6.8	4.7	2.5 U
Chloromethane	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Cymene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U
Methylene Chloride	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	120 UD	6.2 UJV	5 UJV	2.5 UJV	2.5 U
N-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
N-Propylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Tetrachloroethylene (PCE)	5	--	µg/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	
Toluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	
Trichlorofluoromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	
Xylenes	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-1	MW-1	MW-1	MW-1	MW-1
Normal or Field Duplicate:				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
				N	N	N	N	FD
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-1	MW-1	MW-1	MW-1	MW-1
Normal or Field Duplicate:				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
				N	N	N	N	FD
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2 UJV	2 U	2 UJV
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
Normal or Field Duplicate:				N	N	N	N	FD
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>78</b>	<b>31</b>	<b>16</b>	<b>18</b>	<b>14</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.72	0.48 J	0.31 J	0.29 J	0.3 J
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 UJV	1 U	1 UJV	1 UJV
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-2	MW-2	MW-2	MW-2	MW-2
				8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:				
				N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	150 UD	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	200 UD	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	100 UD	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	50 UD	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	25000 UD	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	500 UD	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	200 UD	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	500 UD	5 U	<b>200</b>	16	5.2
Acrylonitrile	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	200 UD	2 U	2.1	2 U	2 U	2 U
Bromomethane	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	250 UD	2.5 U	2.1 J	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	<b>190 JD</b>	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	500 UD	5 U	8.7	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	250 UD	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>7700 D</b>	<b>49</b>	0.23 J	<b>9.1</b>	<b>11</b>	
Toluene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	50 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	250 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	<b>110 D</b>	0.49 J	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	500 UD	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	100 UD	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	250 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-2	MW-2	MW-2	MW-3	MW-3
Normal or Field Duplicate:				08/31/2017	12/07/2017	03/15/2018	8/20/2014	07/14/2016
				N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	75 UD	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	120 UD	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	100 UD	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	120 UD	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	100 UD	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	50 UD	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	25 UD	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	100 UD	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	12000 UD	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	250 UD	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	100 UD	2 U
Acetone	--	50	µg/L	12	5.9	6	250 UD	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	250 UD	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-2 08/31/2017 N	MW-2 12/07/2017 N	MW-2 03/15/2018 N	MW-3 8/20/2014 N	MW-3 07/14/2016 N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
Bromoform	--	50	µg/L	1 J-V	2 UJV	2 UJV	100 UD	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	120 UD	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	250 UD	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 UJV	0.5 U	0.5 U	25 UD	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Chloroform	7	--	µg/L	0.97 J	2.5 U	2.5 U	120 UD	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 UJV	0.5 U	0.5 U	25 UD	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	25 UD	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	250 UD	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	250 UD	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	120 UD	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	250 UD	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	250 UD	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 UJV
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	120 UD	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-2	MW-2	MW-2	MW-3	MW-3
				08/31/2017	12/07/2017	03/15/2018	8/20/2014	07/14/2016
Normal or Field Duplicate:				N	N	N	N	N
Tetrachloroethylene (PCE)	5	--	µg/L	3.8	5	5.3	2700 D	32
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	NA	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 UJV	0.5 U	0.5 U	25 UD	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	120 UD	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	28 D	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	250 UD	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 UJV	50 UD	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	120 UD	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-3	MW-3	MW-3	MW-3	MW-3
Normal or Field Duplicate:				08/18/2016	02/28/2017	06/13/2017	08/31/2017	08/31/2017
				N	N	N	N	FD
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	<b>58</b>	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-3 08/18/2016 N	MW-3 02/28/2017 N	MW-3 06/13/2017 N	MW-3 08/31/2017 N	MW-3 08/31/2017 FD
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	1.6 J	2 U	2 U	2 U	2 UJV
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	1.5 J	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	3.9 J	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-3	MW-3	MW-3	MW-3	MW-3
				08/18/2016	02/28/2017	06/13/2017	08/31/2017	08/31/2017
Normal or Field Duplicate:				N	N	N	N	FD
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.5 U	4.2	2.8	3.3	3
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 UJV	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-3	MW-5S	MW-5S	MW-5S	MW-5S
				03/15/2018	8/19/2014	8/19/2014	07/14/2016	08/18/2016
Normal or Field Duplicate:				N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1.0 U	1.0 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	0.50 U	0.50 U	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 U	250 U	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5.0 U	5.0 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2.0 U	2.0 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5.0 U	5.0 U	1.6 J	5 U
Acrylonitrile	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-3	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	03/15/2018	8/19/2014	8/19/2014	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	FD	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	0.77	0.5 U	
Bromoform	--	50	µg/L	2 UJV	2.0 U	2.0 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV	
Carbon Disulfide	--	60	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	µg/L	2.5 U	2.5 U	2.5 U	<b>9.8</b>	2.6	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-3	MW-5S	MW-5S	MW-5S	MW-5S
				03/15/2018	8/19/2014	8/19/2014	07/14/2016	08/18/2016
Normal or Field Duplicate:				N	N	FD	N	N
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	2.3	0.54	0.54	1	0.82
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	NA	NA	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5.0 U	5.0 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 UJV	1.0 U	1.0 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	03/15/2018	8/18/2014
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	0.50 U	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 U	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
Acetone	--	50	µg/L	5 U	11	5 U	5 U	5.0 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	03/15/2018	8/18/2014
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2.0 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-6S
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	03/15/2018	8/18/2014
				Normal or Field Duplicate:	N	N	N	N	N
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.25 J	0.5 U	0.5 U	0.5 U	0.5 U	<b>7.2</b>
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 UJV	1 UJV	1 UJV	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S
				Sample Date:	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S
				Sample Date:	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S
				Sample Date:	07/14/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	3.4	1.8	0.5 U	0.5 U	0.24 J	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1 UJV	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-8	MW-8	MW-8	MW-8	MW-8
				07/14/2016	08/18/2016	08/18/2016	02/28/2017	06/13/2017
Normal or Field Duplicate:				N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	3 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	4 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	4 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	2 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	4 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	500 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	10 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	4 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	10 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	10 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-8	MW-8	MW-8	MW-8	MW-8
				07/14/2016	08/18/2016	08/18/2016	02/28/2017	06/13/2017
Normal or Field Duplicate:				N	N	FD	N	N
Bromochloromethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	1	1.9	1.9	0.5 U	0.5 U
Bromoform	--	50	µg/L	4 U	2 U	2 U	2 U	2 U
Bromomethane	5	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	10 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	<b>12</b>	<b>19</b>	<b>19</b>	1.1 J	2.5 U
Chloromethane	--	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.4 J	2 J	2 J	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	10 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	10 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.4 J	2 J	2 J	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	10 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	10 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	5 UJV	2.5 UJV	2.5 UJV	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	07/14/2016	08/18/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>140</b>	<b>140</b>	<b>140</b>	<b>36</b>	<b>22</b>	
Toluene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	2.9	2.8	2.8	0.9	0.49 J	
Trichlorofluoromethane	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	10 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	2 U	1 U	1 U	1 U	1 U	
Xylenes	5	--	µg/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-8		MW-8	MW-9	MW-9
				08/31/2017	12/07/2017	03/15/2018	07/14/2016	08/18/2016
Normal or Field Duplicate:				N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-8	MW-8	MW-8	MW-9	MW-9
				08/31/2017	12/07/2017	03/15/2018	07/14/2016	08/18/2016
Normal or Field Duplicate:				N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 UJV	2 UJV	2 UJV	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 UJV
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 UJV	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	0.78 J	0.96 J	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 UJV	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-9	MW-9
				Sample Date:	08/31/2017	12/07/2017	03/15/2018	07/14/2016	08/18/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>20</b>	<b>20</b>	<b>17</b>	<b>20</b>	<b>24</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 UJV	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 UJV	
Trichloroethylene (TCE)	5	--	µg/L	0.52	0.52	0.49 J	0.61	0.79	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 UJV	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-9	MW-9	MW-9	MW-9	MW-9
Normal or Field Duplicate:				02/28/2017	06/13/2017	08/31/2017	12/07/2017	03/15/2018
				N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-9	MW-9	MW-9	MW-9	MW-9
Normal or Field Duplicate:				02/28/2017	06/13/2017	08/31/2017	12/07/2017	03/15/2018
				N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2 UJV	2 UJV	2 UJV
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 UJV	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	0.84 J	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 UJV	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	02/28/2017	06/13/2017	08/31/2017	12/07/2017	03/15/2018
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>35</b>	<b>33</b>	<b>12</b>	<b>20</b>	<b>13</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 UJV	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.75	0.64	0.45 J	0.45 J	0.4 J	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1 UJV	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

---

**ATTACHMENTS**

1. Analytical Report
2. Field Sampling Sheets

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 1**

Analytical Report



## ANALYTICAL REPORT

Lab Number:	L1808835
Client:	Roux Envr. Engr. & Geology, DPC 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	03/20/18

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1808835-01	MW-8	WATER	BROOKLYN, NY	03/15/18 07:30	03/15/18
L1808835-02	MW-9	WATER	BROOKLYN, NY	03/15/18 07:45	03/15/18
L1808835-03	MW-1	WATER	BROOKLYN, NY	03/15/18 08:30	03/15/18
L1808835-04	DUP-031518	WATER	BROOKLYN, NY	03/15/18 08:35	03/15/18
L1808835-05	MW-3	WATER	BROOKLYN, NY	03/15/18 09:15	03/15/18
L1808835-06	MW-2	WATER	BROOKLYN, NY	03/15/18 09:30	03/15/18
L1808835-07	MW-5S	WATER	BROOKLYN, NY	03/15/18 10:20	03/15/18
L1808835-08	FIELD BLANK	WATER	BROOKLYN, NY	03/15/18 10:00	03/15/18
L1808835-09	TRIP BLANK	WATER	BROOKLYN, NY	02/22/18 00:00	03/15/18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 03/20/18

# ORGANICS



# VOLATILES

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-01  
 Client ID: MW-8  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 07:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/20/18 03:31  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.96	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	17		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-01  
**Client ID:** MW-8  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 07:30  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.49	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-01  
 Client ID: MW-8  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 07:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	100		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-02  
 Client ID: MW-9  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 07:45  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/20/18 03:56  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	13		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-02  
**Client ID:** MW-9  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 07:45  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.40	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-02  
 Client ID: MW-9  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 07:45  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	100		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-03  
 Client ID: MW-1  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 08:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/19/18 23:17  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	18		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-03  
**Client ID:** MW-1  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 08:30  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.29	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-03  
 Client ID: MW-1  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 08:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	94		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-04  
 Client ID: DUP-031518  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 08:35  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/20/18 04:21  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	14		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-04  
**Client ID:** DUP-031518  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 08:35  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.30	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-04  
 Client ID: DUP-031518  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 08:35  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-05  
 Client ID: MW-3  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 09:15  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/20/18 04:46  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.3		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-05  
**Client ID:** MW-3  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 09:15  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-05  
 Client ID: MW-3  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 09:15  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-06  
 Client ID: MW-2  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 09:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/20/18 05:11  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	5.3		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-06  
**Client ID:** MW-2  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 09:30  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.0		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-06  
 Client ID: MW-2  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 09:30  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-07  
 Client ID: MW-5S  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 10:20  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/19/18 23:45  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-07  
**Client ID:** MW-5S  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 03/15/18 10:20  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-07  
 Client ID: MW-5S  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 10:20  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	94		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 10:00  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/19/18 21:39  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 10:00  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 03/15/18 10:00  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-09  
 Client ID: TRIP BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 02/22/18 00:00  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 03/19/18 22:04  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

**Lab ID:** L1808835-09  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 02/22/18 00:00  
**Date Received:** 03/15/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**SAMPLE RESULTS**

Lab ID: L1808835-09  
 Client ID: TRIP BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 02/22/18 00:00  
 Date Received: 03/15/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/19/18 20:49  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06,08-09 Batch: WG1098763-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/19/18 20:49  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06,08-09 Batch: WG1098763-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/19/18 20:49  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06,08-09 Batch: WG1098763-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/19/18 20:59  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03,07 Batch: WG1098839-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 03/19/18 20:59  
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03,07 Batch: WG1098839-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 03/19/18 20:59  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03,07 Batch: WG1098839-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	95		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06,08-09 Batch: WG1098763-3 WG1098763-4								
Methylene chloride	91		89		70-130	2		20
1,1-Dichloroethane	97		93		70-130	4		20
Chloroform	96		94		70-130	2		20
Carbon tetrachloride	91		89		63-132	2		20
1,2-Dichloropropane	94		93		70-130	1		20
Dibromochloromethane	87		86		63-130	1		20
1,1,2-Trichloroethane	96		96		70-130	0		20
Tetrachloroethene	89		85		70-130	5		20
Chlorobenzene	91		88		75-130	3		20
Trichlorofluoromethane	93		88		62-150	6		20
1,2-Dichloroethane	95		94		70-130	1		20
1,1,1-Trichloroethane	94		90		67-130	4		20
Bromodichloromethane	90		89		67-130	1		20
trans-1,3-Dichloropropene	91		90		70-130	1		20
cis-1,3-Dichloropropene	89		88		70-130	1		20
1,1-Dichloropropene	96		91		70-130	5		20
Bromoform	79		81		54-136	3		20
1,1,1,2,2-Tetrachloroethane	95		98		67-130	3		20
Benzene	93		90		70-130	3		20
Toluene	93		89		70-130	4		20
Ethylbenzene	94		90		70-130	4		20
Chloromethane	80		89		64-130	11		20
Bromomethane	47		45		39-139	4		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06,08-09 Batch: WG1098763-3 WG1098763-4								
Vinyl chloride	74		71		55-140	4		20
Chloroethane	74		68		55-138	8		20
1,1-Dichloroethene	91		87		61-145	4		20
trans-1,2-Dichloroethene	92		88		70-130	4		20
Trichloroethene	92		90		70-130	2		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	92		90		70-130	2		20
1,4-Dichlorobenzene	91		90		70-130	1		20
Methyl tert butyl ether	85		87		63-130	2		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	88		85		70-130	3		20
Dibromomethane	90		91		70-130	1		20
1,2,3-Trichloropropane	97		98		64-130	1		20
Acrylonitrile	96		98		70-130	2		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	120		120		58-148	0		20
Carbon disulfide	88		83		51-130	6		20
2-Butanone	99		100		63-138	1		20
Vinyl acetate	94		96		70-130	2		20
4-Methyl-2-pentanone	85		89		59-130	5		20
2-Hexanone	79		83		57-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06,08-09 Batch: WG1098763-3 WG1098763-4								
Bromochloromethane	88		88		70-130	0		20
2,2-Dichloropropane	94		90		63-133	4		20
1,2-Dibromoethane	88		88		70-130	0		20
1,3-Dichloropropane	94		94		70-130	0		20
1,1,1,2-Tetrachloroethane	89		87		64-130	2		20
Bromobenzene	90		88		70-130	2		20
n-Butylbenzene	100		98		53-136	2		20
sec-Butylbenzene	99		94		70-130	5		20
tert-Butylbenzene	97		92		70-130	5		20
o-Chlorotoluene	96		90		70-130	6		20
p-Chlorotoluene	95		92		70-130	3		20
1,2-Dibromo-3-chloropropane	77		81		41-144	5		20
Hexachlorobutadiene	100		98		63-130	2		20
Isopropylbenzene	97		93		70-130	4		20
p-Isopropyltoluene	99		95		70-130	4		20
Naphthalene	94		93		70-130	1		20
n-Propylbenzene	100		98		69-130	2		20
1,2,3-Trichlorobenzene	92		98		70-130	6		20
1,2,4-Trichlorobenzene	92		92		70-130	0		20
1,3,5-Trimethylbenzene	97		92		64-130	5		20
1,2,4-Trimethylbenzene	98		94		70-130	4		20
1,4-Dioxane	78		90		56-162	14		20
p-Diethylbenzene	98		93		70-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Project Number: 2158.0002Y004

Lab Number: L1808835

Report Date: 03/20/18

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06,08-09 Batch: WG1098763-3 WG1098763-4								
p-Ethyltoluene	98		94		70-130	4		20
1,2,4,5-Tetramethylbenzene	98		93		70-130	5		20
Ethyl ether	73		77		59-134	5		20
trans-1,4-Dichloro-2-butene	78		81		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	106		108		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	100		100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 Batch: WG1098839-3 WG1098839-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	99		96		70-130	3		20
Carbon tetrachloride	92		89		63-132	3		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	97		97		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	98		91		70-130	7		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	99		93		62-150	6		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	96		91		67-130	5		20
Bromodichloromethane	92		90		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	96		94		70-130	2		20
1,1-Dichloropropene	100		96		70-130	4		20
Bromoform	92		87		54-136	6		20
1,1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	98		93		70-130	5		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		99		70-130	1		20
Chloromethane	100		98		64-130	2		20
Bromomethane	90		100		39-139	11		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 Batch: WG1098839-3 WG1098839-4								
Vinyl chloride	130		120		55-140	8		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	100		96		61-145	4		20
trans-1,2-Dichloroethene	100		97		70-130	3		20
Trichloroethene	92		88		70-130	4		20
1,2-Dichlorobenzene	100		98		70-130	2		20
1,3-Dichlorobenzene	100		97		70-130	3		20
1,4-Dichlorobenzene	100		99		70-130	1		20
Methyl tert butyl ether	99		98		63-130	1		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	99		96		70-130	3		20
Dibromomethane	93		91		70-130	2		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Acrylonitrile	96		100		70-130	4		20
Styrene	120		115		70-130	4		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	120		100		58-148	18		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	98		89		63-138	10		20
Vinyl acetate	88		88		70-130	0		20
4-Methyl-2-pentanone	97		100		59-130	3		20
2-Hexanone	83		82		57-130	1		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1808835

Project Number: 2158.0002Y004

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 Batch: WG1098839-3 WG1098839-4								
Bromochloromethane	96		95		70-130	1		20
2,2-Dichloropropane	100		94		63-133	6		20
1,2-Dibromoethane	96		96		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	98		95		64-130	3		20
Bromobenzene	100		93		70-130	7		20
n-Butylbenzene	110		100		53-136	10		20
sec-Butylbenzene	110		100		70-130	10		20
tert-Butylbenzene	100		97		70-130	3		20
o-Chlorotoluene	100		99		70-130	1		20
p-Chlorotoluene	100		98		70-130	2		20
1,2-Dibromo-3-chloropropane	89		87		41-144	2		20
Hexachlorobutadiene	78		74		63-130	5		20
Isopropylbenzene	110		99		70-130	11		20
p-Isopropyltoluene	100		99		70-130	1		20
Naphthalene	94		93		70-130	1		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	90		88		70-130	2		20
1,2,4-Trichlorobenzene	90		89		70-130	1		20
1,3,5-Trimethylbenzene	100		99		64-130	1		20
1,2,4-Trimethylbenzene	100		98		70-130	2		20
1,4-Dioxane	68		76		56-162	11		20
p-Diethylbenzene	100		98		70-130	2		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Project Number: 2158.0002Y004

Lab Number: L1808835

Report Date: 03/20/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 Batch: WG1098839-3 WG1098839-4								
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	98		93		70-130	5		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	89		92		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	104		104		70-130
4-Bromofluorobenzene	95		92		70-130
Dibromofluoromethane	96		94		70-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1808835

**Project Number:** 2158.0002Y004

**Report Date:** 03/20/18

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 QC Batch ID: WG1098839-6 WG1098839-7 QC Sample: L1808835-03 Client ID: MW-1												
Methylene chloride	ND	10	11	110		12	120		70-130	9		20
1,1-Dichloroethane	ND	10	10	100		11	110		70-130	10		20
Chloroform	ND	10	10	100		11	110		70-130	10		20
Carbon tetrachloride	ND	10	8.7	87		9.3	93		63-132	7		20
1,2-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
Dibromochloromethane	ND	10	9.4	94		10	100		63-130	6		20
1,1,2-Trichloroethane	ND	10	10	100		12	120		70-130	18		20
Tetrachloroethene	18	10	25	70		26	80		70-130	4		20
Chlorobenzene	ND	10	9.8	98		11	110		75-130	12		20
Trichlorofluoromethane	ND	10	10	100		10	100		62-150	0		20
1,2-Dichloroethane	ND	10	9.2	92		10	100		70-130	8		20
1,1,1-Trichloroethane	ND	10	9.4	94		10	100		67-130	6		20
Bromodichloromethane	ND	10	9.0	90		9.8	98		67-130	9		20
trans-1,3-Dichloropropene	ND	10	9.6	96		11	110		70-130	14		20
cis-1,3-Dichloropropene	ND	10	8.8	88		9.9	99		70-130	12		20
1,1-Dichloropropene	ND	10	9.6	96		10	100		70-130	4		20
Bromoform	ND	10	8.6	86		9.5	95		54-136	10		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		12	120		67-130	18		20
Benzene	ND	10	9.6	96		10	100		70-130	4		20
Toluene	ND	10	10	100		11	110		70-130	10		20
Ethylbenzene	ND	10	9.8	98		10	100		70-130	2		20
Chloromethane	ND	10	11	110		12	120		64-130	9		20
Bromomethane	ND	10	9.5	95		11	110		39-139	15		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1808835

**Project Number:** 2158.0002Y004

**Report Date:** 03/20/18

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 QC Batch ID: WG1098839-6 WG1098839-7 QC Sample: L1808835-03 Client ID: MW-1												
Vinyl chloride	ND	10	14	140		14	140		55-140	0		20
Chloroethane	ND	10	13	130		14	140	Q	55-138	7		20
1,1-Dichloroethene	ND	10	10	100		11	110		61-145	10		20
trans-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Trichloroethene	0.29J	10	9.0	90		9.7	97		70-130	7		20
1,2-Dichlorobenzene	ND	10	9.3	93		10	100		70-130	7		20
1,3-Dichlorobenzene	ND	10	9.2	92		10	100		70-130	8		20
1,4-Dichlorobenzene	ND	10	9.3	93		10	100		70-130	7		20
Methyl tert butyl ether	ND	10	9.7	97		11	110		63-130	13		20
p/m-Xylene	ND	20	20	100		21	105		70-130	5		20
o-Xylene	ND	20	20	100		22	110		70-130	10		20
cis-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Dibromomethane	ND	10	8.8	88		9.9	99		70-130	12		20
1,2,3-Trichloropropane	ND	10	9.9	99		11	110		64-130	11		20
Acrylonitrile	ND	10	9.9	99		11	110		70-130	11		20
Styrene	ND	20	22	110		24	120		70-130	9		20
Dichlorodifluoromethane	ND	10	11	110		11	110		36-147	0		20
Acetone	ND	10	8.6	86		10	100		58-148	15		20
Carbon disulfide	ND	10	11	110		11	110		51-130	0		20
2-Butanone	ND	10	8.5	85		10	100		63-138	16		20
Vinyl acetate	ND	10	8.0	80		8.8	88		70-130	10		20
4-Methyl-2-pentanone	ND	10	9.6	96		11	110		59-130	14		20
2-Hexanone	ND	10	8.1	81		9.2	92		57-130	13		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1808835

**Project Number:** 2158.0002Y004

**Report Date:** 03/20/18

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 QC Batch ID: WG1098839-6 WG1098839-7 QC Sample: L1808835-03 Client ID: MW-1												
Bromochloromethane	ND	10	9.5	95		10	100		70-130	5		20
2,2-Dichloropropane	ND	10	8.4	84		8.7	87		63-133	4		20
1,2-Dibromoethane	ND	10	9.4	94		10	100		70-130	6		20
1,3-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
1,1,1,2-Tetrachloroethane	ND	10	9.6	96		10	100		64-130	4		20
Bromobenzene	ND	10	9.2	92		9.9	99		70-130	7		20
n-Butylbenzene	ND	10	9.5	95		10	100		53-136	5		20
sec-Butylbenzene	ND	10	9.6	96		10	100		70-130	4		20
tert-Butylbenzene	ND	10	9.5	95		10	100		70-130	5		20
o-Chlorotoluene	ND	10	9.7	97		10	100		70-130	3		20
p-Chlorotoluene	ND	10	9.5	95		10	100		70-130	5		20
1,2-Dibromo-3-chloropropane	ND	10	8.4	84		9.8	98		41-144	15		20
Hexachlorobutadiene	ND	10	6.6	66		7.4	74		63-130	11		20
Isopropylbenzene	ND	10	9.6	96		10	100		70-130	4		20
p-Isopropyltoluene	ND	10	9.4	94		10	100		70-130	6		20
Naphthalene	ND	10	8.6	86		10	100		70-130	15		20
n-Propylbenzene	ND	10	9.8	98		11	110		69-130	12		20
1,2,3-Trichlorobenzene	ND	10	7.9	79		9.0	90		70-130	13		20
1,2,4-Trichlorobenzene	ND	10	8.0	80		9.0	90		70-130	12		20
1,3,5-Trimethylbenzene	ND	10	9.6	96		10	100		64-130	4		20
1,2,4-Trimethylbenzene	ND	10	9.2	92		10	100		70-130	8		20
1,4-Dioxane	ND	500	420	84		460	92		56-162	9		20
p-Diethylbenzene	ND	10	9.1	91		10	100		70-130	9		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1808835

**Project Number:** 2158.0002Y004

**Report Date:** 03/20/18

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03,07 QC Batch ID: WG1098839-6 WG1098839-7 QC Sample: L1808835-03 Client ID: MW-1												
p-Ethyltoluene	ND	10	9.9	99		11	110		70-130	11		20
1,2,4,5-Tetramethylbenzene	ND	10	8.6	86		9.8	98		70-130	13		20
Ethyl ether	ND	10	11	110		11	110		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	8.3	83		9.6	96		70-130	15		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		93		70-130
4-Bromofluorobenzene	93		95		70-130
Dibromofluoromethane	94		94		70-130
Toluene-d8	106		104		70-130

**Project Name:** MARCUS GARVEY**Lab Number:** L1808835**Project Number:** 2158.0002Y004**Report Date:** 03/20/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1808835-01A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-01B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-01C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-02A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-02B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-02C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03A1	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03A2	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03B1	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03B2	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03C1	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-03C2	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-04A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-04B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-04C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-05A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-05B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-05C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-06A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-06B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

Serial\_No:03201815:33  
**Lab Number:** L1808835  
**Report Date:** 03/20/18

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1808835-06C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-07A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-07B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-07C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-08A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-08B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-08C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-09A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1808835-09B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
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#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

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The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,**

**SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**


**SM2340B**

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For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <u>1</u>	of <u>2</u>	Issue Date: <u>3/15/18</u> By Lab:	Alpha Job #: <u>-1808-35</u>
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3286	Project Information	
Client Information		Project Name: <u>MARCUS GARNEY</u> Project Location: <u>BROOKLYN, NY</u> Project # <u>2158-00027004</u> (Use Project name as Project #) <input type="checkbox"/>		Deliverables: <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EquiS (1 File) <input checked="" type="checkbox"/> EquiS (4 File) <input type="checkbox"/> Other	
Client: <u>ROUX ASSOCIATES</u> Address: <u>209 SHAFER ST. ISLANDIA, NY 11749</u> Phone: <u>631-2322600</u> Fax: <u>631-2329898</u> Email: <u>LEVINUTTE@ROUXINC.COM</u>		Project Manager: <u>LEVI CURNUTTE</u> ALPHAQuote #: _____ Turn-Around Time: Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____		Regulatory Requirement: <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	
Other project specific requirements/comments:		Please specify Metals or TAL.		Disposal Site Information	
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration	
Please specify Metals or TAL.		TCL VOCs (220)		<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
ALPHA Lab ID	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
<u>08835-01</u>	<u>MW-8</u>	<u>3-15-18</u>	<u>0730</u>	<u>GW</u>	<u>MS</u>
<u>02</u>	<u>MW-9</u>	<u>3-15-18</u>	<u>0745</u>	<u>GW</u>	<u>AF</u>
<u>03</u>	<u>MW-1</u>	<u>3-15-18</u>	<u>0830</u>	<u>GW</u>	<u>MS</u>
<u>04</u>	<u>MW-1-MS</u>	<u>3-15-18</u>	<u>0840</u>	<u>GW</u>	<u>MS</u>
<u>05</u>	<u>MW-1-MSD</u>	<u>3-15-18</u>	<u>0845</u>	<u>GW</u>	<u>MS</u>
<u>06</u>	<u>DUP-031518</u>	<u>3-15-18</u>	<u>0835</u>	<u>GW</u>	<u>MS</u>
<u>07</u>	<u>MW-3</u>	<u>3-15-18</u>	<u>0915</u>	<u>GW</u>	<u>AF</u>
<u>08</u>	<u>MW-2</u>	<u>3-15-18</u>	<u>0930</u>	<u>GW</u>	<u>MS</u>
<u>09</u>	<u>MW-5 S</u>	<u>3-15-18</u>	<u>1020</u>	<u>GW</u>	<u>AF</u>
<u>08</u>	<u>FIELD BLANK</u>	<u>3-15-18</u>	<u>1000</u>	<u>GW</u>	<u>MS</u>
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015	
		Container Type: <u>V</u>			
		Preservative: <u>B</u>			
		Relinquished By: <u>[Signature]</u>		Received By: <u>[Signature]</u>	
		Date/Time: <u>3/15/18 1345</u>		Date/Time: <u>3/15/18 1345</u>	
		Date/Time: <u>3/15/18 1350</u>		Date/Time: <u>3/15/18 1350</u>	
		Date/Time: <u>3/15/18 2300</u>		Date/Time: <u>3/15/18 2300</u>	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved, BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <b>2</b> of <b>2</b>		Date Analyzed (to Lab) <b>3/15/18</b>		ALPHA LAB # <b>L1808235</b>	
		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <b>MARCUS GARVEY</b> Project Location: <b>BROOKLYN, NY</b> Project # <b>2158-0002 Y004</b> (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #	
Client Information Client: <b>ROUX ASSOCIATES</b> Address: <b>209 SHAFTER ST. ISLANDIA, NY 11749</b> Phone: <b>631-2322600</b> Fax: <b>631-2329898</b> Email: <b>LEVINUTTE@ROUXINC.COM</b>		Project Manager: <b>LEVI CURNUTTE</b> ALPHAQuote #: Turn-Around Time: Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						TOL VOCs (8260)		Sample Specific Comments	
Please specify Metals or TAL									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date      Time		Sample Matrix	Sampler's Initials		
<b>G8635-04</b>		<b>TRIP BLANK</b>		<b>2-22-18</b> <b>-</b>		<b>LAB</b>	<b>JB</b>	<b>X</b>	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>2</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <b>V</b>		Preservative <b>B</b>	
								Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
								Relinquished By:      Date/Time      Received By:      Date/Time <b>Jon Paulina</b> <b>3/15/18 1345</b> <b>Jon Paulina</b> <b>3/15/18 1345</b> <b>Jon Paulina</b> <b>3/15/18 1350</b> <b>Jon Paulina</b> <b>3/15/18 1350</b> <b>Jon Paulina</b> <b>3/15/18 1350</b> <b>Jon Paulina</b> <b>3/15/18 1350</b>	

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 2**

Field Sampling Sheets

### Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-1 **Weather:** 34°F cloudy  
**Date:** 3/15/2018 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** MS **Well Diameter / Type:** pvc stick up  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 12.39 **Volume of Water in Well (gal)** \_\_\_\_\_  
**Depth to Bottom (ft):** 20.12 **Volume of Water to Remove (gal):** \_\_\_\_\_  
**well diameter:** 1 in 2 in 4 in 6 in 8 in  
**gallons per foot:** 0.041 0.163 0.653 1.469 2.611  
**Start Purging:** 0800 **Purge Rate:** 160 mL/min  
**End Purging:** 0830 **Volume of Water Removed (gal):** ~0.85 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** clear after first 5 minutes  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)** \_\_\_\_\_  
 (analyses / no. bottles)  
**Duplicate Sample:** yes **Laboratory:** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0800	—	12.39	5.39	1.14	270	8.46	15.89	268
0803	—	12.39	5.41	1.14	206	7.91	15.93	268
0806	—	12.39	5.42	1.14	150	7.83	16.09	270
0809	—	12.39	5.42	1.14	119	7.80	16.09	271
0812	—	12.39	5.42	1.13	77.1	7.79	16.14	271
0815	—	12.39	5.42	1.13	39.5	7.79	16.16	272
0820	—	12.39	5.43	1.13	30.7	7.78	16.20	273
0825	—	12.39	5.43	1.13	29.1	7.78	16.19	273
0830	—	12.39	5.42	1.13	28.9	7.77	16.20	273

sample time: 0830

ROUX ASSOCIATES, INC.

DUP031518: 0835  
 MW-1 MS - 0840  
 MW-1MSD - 0845



**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-2 Weather: cloudy B44F

Date: 3/15/2018 Purge Water Disposal: 55 gal drums

Sampled By: MJS Well Diameter / Type: 1 inch PVC Stickup

Depth to Product (ft): — Water Column (ft): —

Depth to Water (ft): 12.35 Volume of Water in Well (gal): —

Depth to Bottom (ft): 20.03 Volume of Water to Remove (gal): —

well diameter: 1 in 2 in 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0900 Purge Rate: 100 mL/min

End Purging: 0930 Volume of Water Removed (gal): ~ 7 GAL

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/Comments: H. purple

Samples Collected: — VOCs (3 vials / HCl) —  
 (analyses / no. bottles)

Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/cm	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0900	-	12.31	5.30	0.924	36.9	7.49	15.98	505
0903	-	12.31	5.39	0.923	25.8	7.52	15.91	508
0906	-	12.31	5.40	0.921	30.4	7.68	15.79	512
0909	-	12.31	5.40	0.918	22.9	7.72	15.76	514
0912	-	12.30	5.39	0.915	16.1	7.74	15.75	517
0915	-	12.31	5.39	0.912	13.8	7.76	15.76	519
0920	-	12.31	5.39	0.910	14.2	7.77	15.76	520
0925	-	12.31	5.39	0.906	11.7	7.77	15.79	522
0930	-	12.31	5.39	0.904	11.5	7.77	15.80	523

Sample time: ~~0900~~  
0930

## Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-3 **Weather:** 35°F, CLOUDY  
**Date:** 3/15/2018 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** Alfredo F. **Well Diameter / Type:** 1" PVC  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 11.98 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 20.05 **Volume of Water to Remove (gal):** \_\_\_\_\_  
**well diameter:** 1 in      2 in      4 in      6 in      8 in  
**gallons per foot:**              0.041      0.163      0.653      1.469      2.611  
**Start Purging:** 0845 **Purge Rate:** 100 mL/MIN  
**End Purging:** 0912 **Volume of Water Removed (gal):** 0.75 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** CLEAR  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)**  
 (analyses / no. bottles) \_\_\_\_\_  
**Duplicate Sample:** No **Laboratory :** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0848	—	11.98	5.71	0.626	17.51	7.57	15.35	230
0851	—	11.98	5.70	0.632	15.38	7.38	15.76	234
0854	—	11.98	5.70	0.632	14.26	7.26	15.86	234
0857	—	11.98	5.71	0.631	11.03	7.19	16.04	237
0900	—	11.98	5.71	0.630	10.09	7.15	16.05	237
0903	—	11.98	5.72	0.630	9.72	7.13	16.06	237
0906	—	11.98	5.72	0.630	8.99	7.11	16.06	238
0909	—	11.98	5.72	0.629	8.97	7.10	16.07	238
0912	—	11.98	5.72	0.629	8.97	7.08	16.07	239

SAMPLE TIME : 0915

**Well Sampling Purge Log**

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-5 S **Weather:** 34°F, CLOUDY  
**Date:** 3/15/2018 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** ALFREDO F. **Well Diameter / Type:** 2" PVC  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 21.60 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 30.00 **Volume of Water to Remove (gal):** \_\_\_\_\_  
**well diameter:** 1 in  2 in  4 in  6 in  8 in  
**gallons per foot:** 0.041 0.163 0.653 1.469 2.611  
**Start Purging:** 0951 **Purge Rate:** 100 mL/MIN  
**End Purging:** 1018 **Volume of Water Removed (gal):** 0.8 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** CLEAR  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)** \_\_\_\_\_  
 (analyses / no. bottles)  
**Duplicate Sample:** No **Laboratory :** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0954	—	21.60	5.41	0.734	18.55	9.56	14.22	444
0957	—	21.60	5.41	0.732	12.48	9.27	14.21	446
1000	—	21.60	5.41	0.732	10.37	9.11	13.77	453
1003	—	21.60	5.42	0.732	9.41	8.69	13.60	457
1006	—	21.60	5.42	0.731	8.39	8.61	13.56	459
1009	—	21.60	5.42	0.731	8.02	8.52	13.51	460
1012	—	21.60	5.42	0.731	7.11	8.50	13.47	460
1015	—	21.60	5.42	0.730	6.83	8.48	13.42	460
1018	—	21.60	5.42	0.730	6.53	8.46	13.40	460

SAMPLE TIME: 1020

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-8 Weather: cold clear 33°F

Date: 3/15/2018 Purge Water Disposal: 55 gal drums

Sampled By: ms Well Diameter / Type: 2 inch PVC Flush

Depth to Product (ft): - Water Column (ft): \_\_\_\_\_

Depth to Water (ft): 21.04 Volume of Water in Well (gal): \_\_\_\_\_

Depth to Bottom (ft): 28.68 Volume of Water to Remove (gal): \_\_\_\_\_

well diameter: 1 in 2 in 4 in 6 in 8 in

gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0700 Purge Rate: 100 gpm

End Purging: 0730 Volume of Water Removed (gal): ~ 2 gallons

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: clear

Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)

(analyses / no. bottles)

Duplicate Sample: NO Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C	ORP mV
0700	-	21.04	5.28	1.28	18.2	9.04	14.04	221
0703	-	↓	5.28	1.28	15.3	8.87	13.95	225
0706	-		5.28	1.27	15.1	8.67	13.99	226
0709	-		5.28	1.26	15.0	8.55	14.07	228
0712	-		5.28	1.25	14.0	8.46	14.06	230
0715	-		5.27	1.24	13.0	8.37	14.08	233
0720	-		5.28	1.24	11.7	8.31	14.11	235
0725	-		5.29	1.23	11.0	8.18	14.19	238
0730	-		21.14	5.28	1.23	10.8	8.11	14.25

Sample time: 0730



Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-9 Weather: 34°F, CLOUDY  
 Date: 3/15/2018 Purge Water Disposal: 55 gal drums  
 Sampled By: ALFREDO F. Well Diameter / Type: 2" PVC  
 Depth to Product (ft): - Water Column (ft): \_\_\_\_\_  
 Depth to Water(ft): 21.63 Volume of Water in Well (gal) \_\_\_\_\_  
 Depth to Bottom (ft): 29.19 Volume of Water to Remove (gal): \_\_\_\_\_  
 well diameter: 1 in (2 in) 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0720 Purge Rate: 100 ml/min  
 End Purging: 0744 Volume of Water Removed (gal): 0.6 GAL  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/ Comments: CLEAR  
 Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles) \_\_\_\_\_  
 Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0723	-	21.63	5.86	0.964	19.17	9.27	14.61	176
0726	-	21.63	5.90	0.972	12.63	9.25	14.18	180
0729	-	21.63	5.90	0.973	10.06	9.16	13.81	184
0732	-	21.63	5.90	0.975	10.01	9.14	13.80	185
0735	-	21.63	5.90	0.975	9.96	9.12	13.78	186
0738	-	21.63	5.90	0.975	9.81	9.11	13.76	186
0741	-	21.63	5.90	0.975	9.73	9.10	13.76	186
0744	-	21.63	5.90	0.975	9.68	9.09	13.75	187

SAMPLE TIME: 0745

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**PLATE**

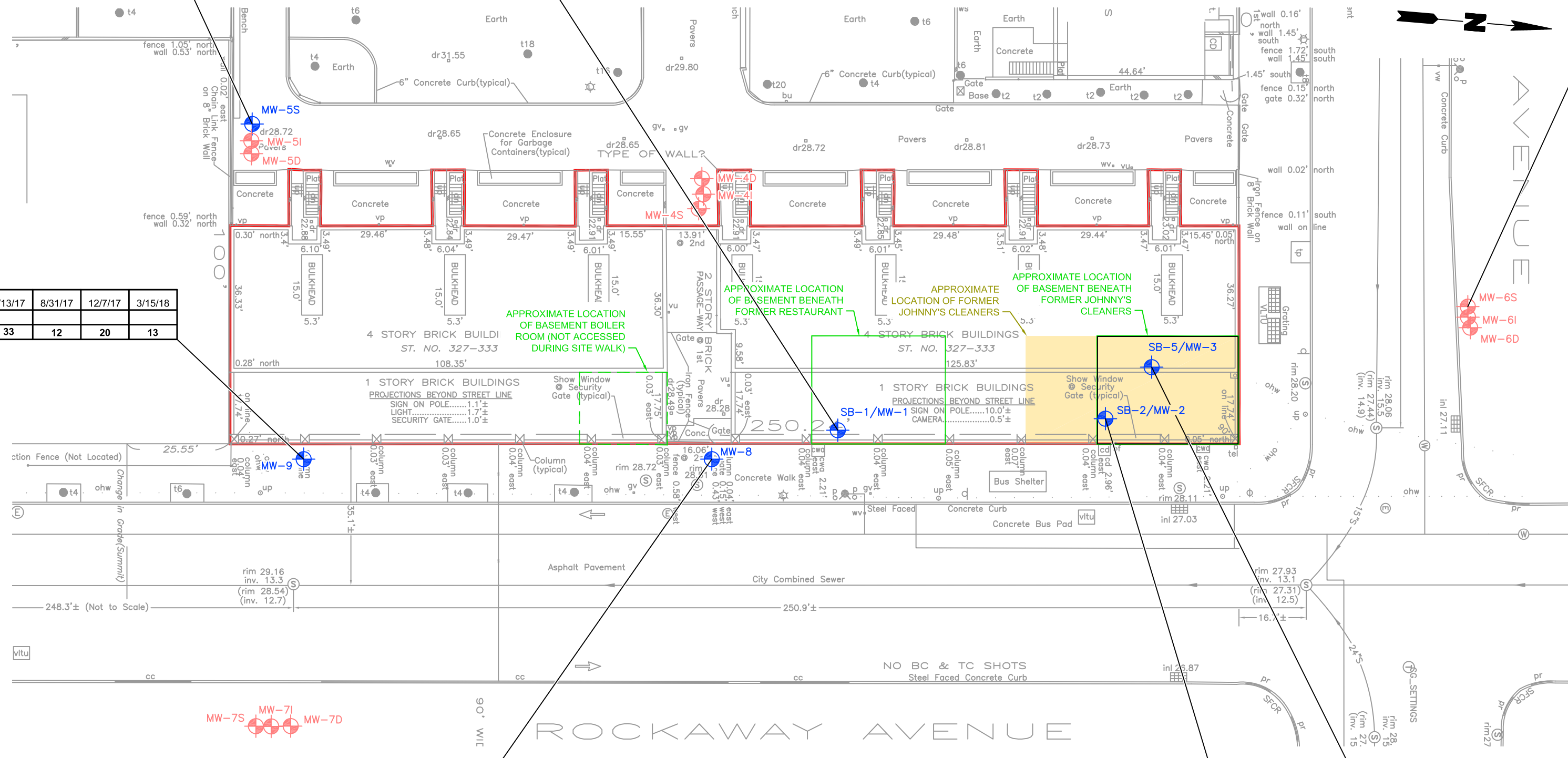
1. Exceedances of AWQSGVs in Groudwater

MW-5S	8/19/14	8/19/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	3/15/18
<b>VOCs</b>		DUP						
Chloroform	ND	ND	9.8	NE	ND	ND	ND	ND

MW-1	8/20/14	7/14/16	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	3/15/18
<b>VOCs</b>			DUP							DUP
Cis-1,2-Dichloroethylene	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	3200 D	220	240	110	62	78	31	16	18	14
Trichloroethylene (TCE)	40 D	NE	NE	ND	NE	NE	NE	NE	NE	NE

MW-6S	8/18/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
<b>VOCs</b>						
Tetrachloroethylene (PCE)	7.2	NE	NE	ND	ND	NE

MW-9	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18
<b>VOCs</b>							
Tetrachloroethylene (PCE)	20	24	35	33	12	20	13



MW-8	7/14/16	8/18/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18
<b>VOCs</b>			DUP					
Chloroform	12	19	19	NE	ND	ND	NE	NE
Tetrachloroethylene (PCE)	140	140	140	36	22	20	20	17

MW-2	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18
<b>VOCs</b>								
Acetone	ND	ND	200	NE	NE	NE	NE	NE
Cis-1,2-Dichloroethylene	190 JD	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	190 JD	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	7700 D	49	NE	9.1	11	NE	NE	5.3
Trichloroethylene (TCE)	110 D	NE	ND	ND	ND	ND	ND	ND

MW-3	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	3/15/18
<b>VOCs</b>							DUP
Acetone	ND	ND	58	ND	ND	ND	ND
Tetrachloroethylene (PCE)	2700 D	32	ND	NE	NE	NE	NE
Trichloroethylene (TCE)	28 D	ND	ND	ND	ND	ND	ND

- LEGEND**
- MW-4: LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
  - MW-1: LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
  - Red line: BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
  - Yellow area: APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
  - Green dashed line: APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

**DATA BOX KEY**

SAMPLE LOCATION: MW-3

SAMPLE DATE: 8/20/14, 7/14/16

ANALYTE: VOCs

CONCENTRATION: (see table below)

μg/L - MICROGRAMS PER LITER

\* - NYSDEC AWQSGVs

NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AWQSGVs - AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES

D - DILUTION

J - ESTIMATED VALUE

DUP - DUPLICATE SAMPLE

VOCs - VOLATILE ORGANIC COMPOUNDS

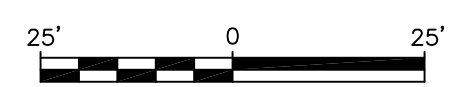
ND - NO DETECTION

NE - NO EXCEEDANCES

Parameter	Standards* (μg/L)
<b>VOCs</b>	
Acetone	50
Chloroform	7
Cis-1,2-Dichloroethylene	5
Dichloroethylenes	5
Tetrachloroethylene (PCE)	5
Trichloroethylene (TCE)	5

CONCENTRATIONS IN μg/L

- NOTES**
- SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
  - WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-8 AND MW-9.
  - ON NOVEMBER 21, 2017, NYSDEC APPROVED THE REMOVAL OF MW-6S FROM THE LONG-TERM SITE MONITORING NETWORK.



Title: **EXCEEDANCES OF AWQSGVs IN GROUNDWATER**

MARCUS GARVEY APARTMENTS  
650 ROCKAWAY AVE., BROOKLYN, NEW YORK

Prepared For: **MARCUS GARVEY PRESERVATION LLC**

Compiled by: L.C.	Date: 20APR18	PLATE
Prepared by: G.M.	Scale: AS SHOWN	<b>1</b>
Project Mgr: N.C.	Project: 2158.0002Y004	
File: 2158.0002Y160.03.DWG		

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January 9, 2019

Stephen G. Malsan, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway  
Albany, New York 12233-7015

Re: December 4, 2018 Quarterly Groundwater Sampling Event Summary  
Site Management Plan Groundwater Monitoring Program  
Marcus Garvey Apartments  
Site Number C224198  
650 Rockaway Avenue, Brooklyn, New York

Dear Mr. Malsan:

In accordance with the Site Management Plan (SMP) for the Site dated November 2016, Roux Environmental Engineering and Geology, D.P.C. (Roux) conducted quarterly groundwater sampling on behalf of Marcus Garvey Apartments LLC from the site known as Marcus Garvey Apartments located at 650 Rockaway Avenue (a.k.a. 654, 658, 666, 670, 674 Rockaway Avenue and 327, 329, 331, 333, 335, 337, 339 Chester Street) in Brownsville, Brooklyn, New York (Site). As described in the SMP, the constituents of concern (COCs) for the Site in groundwater are chlorinated volatile organic compounds (CVOCs); primarily tetrachloroethylene (PCE) and its breakdown products trichloroethylene (TCE) and cis-1,2-dichloroethene (1,2-DCE). The remedy for the Site included the removal of source material soil and implementation of *in situ* potassium permanganate injections completed in July and August 2016, respectively.

As per the SMP, the Site monitoring and sampling plan includes groundwater monitoring for a total of seven rounds after the certificate of completion was issued for the Site. The network of monitoring wells was designed to monitor on-Site and downgradient groundwater conditions at the Site. Groundwater flow direction is generally to the south. The original monitoring network defined in the SMP included on-Site groundwater monitoring wells MW-1, MW-2, and MW-3 and off-Site groundwater monitoring wells MW-5S, MW-6S, MW-8, and MW-9, as shown on Plate 1. On November 21, 2017, New York State Department of Environmental Conservation (NYSDEC) approved to permanent removal of well MW-6S from the monitoring network (though the well remains in place).

Roux last performed groundwater sampling at the Site on March 15, 2018 and submitted a Periodic Review Report summarizing results and requesting termination of the groundwater sampling program. Roux also e-mailed and called the NYSDEC project manager periodically regarding this request. To date, Roux or Marcus Garvey Apartments LLC has not received written notice of the NYSDEC's decision regarding this request. As such, groundwater sampling was performed by Roux at six monitoring wells; MW-1, MW-2, MW-3, MW-5S, MW-8, and MW-9 on December 4, 2018. This was the seventh post-remediation sampling round completed and sixth after the issuance of the Site certificate of completion. Wells were sampled using a low-flow, peristaltic pump technique and analyzed by Alpha Analytical for VOCs.

The laboratory analytical report (including the chain-of-custody) and field sampling sheets are included as Attachments 1 and 2, respectively. Table 1 shows the results of historic groundwater samples collected in August 2014 (reported in the Roux January 2016 Remedial Investigation Report/Remedial Action Work Plan [RIR/RAWP]), baseline sampling on July 14, 2016, and all post-



remediation sampling events to date. Plate 1 presents the sample results over time. Plate 1 includes only those parameters with at least one exceedance of NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1.) Ambient Water Quality Standards and Guidance Values (AWQSGVs) at a particular well.

No on-Site or off-Site wells exceeded AWQSGVs for the COC TCE and no detections of 1,2-DCE were observed in the December 2018 sampling round. The trends in the PCE concentrations observed in on-Site and off-Site monitoring wells with time are summarized below.

#### **PCE Trends in On-Site Monitoring Wells**

All on-Site monitoring wells continue to exhibit over a 99% reduction in PCE when compared to their 2014 sample concentrations. The highest concentration of PCE in on-Site monitoring wells was detected on August 20, 2014 at 7,700 parts per billion (ppb) from the sample taken from MW 2. Results from MW-2 from the December 2018 sampling event show that the PCE concentration was 8.1 ppb, which is slightly above the NYSDEC AWQSGV of 5 ppb. At well MW-1, the concentration of PCE was detected at 3,200 ppb in August 2014 and PCE was detected at 21 ppb in well MW-1 during the December 2018 sampling event. MW-3 has been non-detect or below AWQSGVs for PCE for all post-injection samples.

#### **PCE Trends in Off-Site Monitoring Wells**

MW-5S was non-detect for VOCs in groundwater for the fifth consecutive round (with NYSDEC's approval, MW-5S was not Sampled in December 2017). MW-8 is the off-Site well located closest to where *in situ* injections were completed at the Site. In December 2018, PCE was detected at MW-8 at a concentration of 17 ppb, which corresponds to a greater than an 87% reduction when compared to the baseline sample (July 2016) result of 140 ppb. MW-9 is farther downgradient and PCE was detected at 14 ppb during the December 2018 sampling event, which is below the PCE concentration detected during the July 2016 baseline sampling (20 ppb). Furthermore, due to the distance of MW-9 from the injections area significant influence was not expected at this well, however, concentrations remain low.

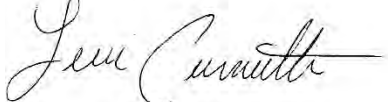
#### **Request to Terminate Groundwater Sampling Program**

The data presented in this report continue to demonstrate that the remedial actions implemented at the Site were effective. At the off-Site wells MW-8 and MW-9 PCE concentrations remain only slightly above NYSDEC AWQSGVs. In addition, concentrations of COCs in all on-Site monitoring wells have exhibited reductions of at least 96% in all post-remediation samples beginning in August 2016. Due to the consistently low to non-detect concentrations of the COCs in groundwater monitoring wells across the Site, Marcus Garvey Preservation LLC respectfully requests that the Site groundwater sampling program be terminated at this time.

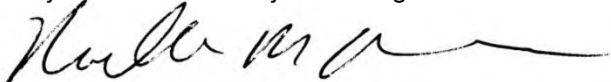
Please do not hesitate to contact Noelle Clarke, P.E. or Levi Curnutte at (631) 232-2600 if you have questions or require additional information.

Sincerely,

#### **ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, D.P.C.**



Levi Curnutte  
Project Scientist / Project Manager



Noelle M. Clarke, P.E.  
Principal Engineer

Attachments

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**TABLE**

1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	75 UD	3.8 U	3 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	5 U	4 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	620 RV	500 RV	250 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	100 UD	5 U	4 U	2 U	2 U	
Acetone	--	50	µg/L	250 UD	12 U	10 U	4.2 J	2.6 J	
Acrylonitrile	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Benzene	1	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Bromochloromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	25 UD	0.56 J	0.57 J	0.48 J	0.5 U	
Bromoform	--	50	µg/L	100 UD	5 U	4 U	2 U	2 U	
Bromomethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Carbon Disulfide	--	60	µg/L	250 UD	12 U	10 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	µg/L	120 UD	6.4	6.8	4.7	2.5 U	
Chloromethane	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	<b>60 JD</b>	2.2 J	2.3 J	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	12 U	10 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	120 UD	6.2 UJV	5 UJV	2.5 UJV	2.5 U	
N-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
N-Propylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	8/20/2014	07/14/2016	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	FD	N	N
Tetrachloroethylene (PCE)	5	--	µg/L	<b>3200 D</b>	<b>220</b>	<b>240</b>	<b>110</b>	<b>62</b>	
Toluene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	1.2 U	1 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	6.2 U	5 U	2.5 UJV	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	<b>40 D</b>	2.6	2.8	0.5 U	0.59	
Trichlorofluoromethane	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	250 UD	12 U	10 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	50 UD	2.5 U	2 U	1 U	1 U	
Xylenes	5	--	µg/L	120 UD	6.2 U	5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
Normal or Field Duplicate:				N	N	N	N	FD
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-1	MW-1	MW-1	MW-1	MW-1
				06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
				Normal or Field Duplicate:				
				N	N	N	N	FD
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2 UJV	2 U	2 UJV
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-1	MW-1	MW-1	MW-1
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	03/15/2018
				Normal or Field Duplicate:	N	N	N	N	FD
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>78</b>	<b>31</b>	<b>16</b>	<b>18</b>	<b>14</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.72	0.48 J	0.31 J	0.29 J	0.3 J	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 UJV	1 U	1 UJV	1 UJV	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date:	12/4/2018	8/20/2014	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	150 UD	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1.0 U	100 UD	1 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	50 UD	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	25000 UD	250 RV	250 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5.0 U	500 UD	5 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2.0 U	200 UD	2 U	2 U	2 U	
Acetone	--	50	µg/L	5.0 U	500 UD	5 U	<b>200</b>	16	
Acrylonitrile	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	
Benzene	1	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date: 12/4/2018	8/20/2014	07/14/2016	08/18/2016	02/28/2017
Normal or Field Duplicate:				N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2.0 U	200 UD	2 U	2.1	2 U
Bromomethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	5.0 U	500 UD	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	2.5 U	250 UD	2.5 U	2.1 J	2.5 U
Chloromethane	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	<b>190 JD</b>	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	500 UD	5 U	8.7	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	250 UD	2.5 UJV	2.5 UJV	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-1	MW-2	MW-2	MW-2	MW-2
				Sample Date:	12/4/2018	8/20/2014	07/14/2016	08/18/2016	02/28/2017
				Normal or Field Duplicate:	N	N	N	N	N
Tetrachloroethylene (PCE)	5	--	µg/L	21	<b>7700 D</b>	49	0.23 J	<b>9.1</b>	
Toluene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	NA	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	50 UD	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	250 UD	2.5 U	2.5 UJV	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.29 J	<b>110 D</b>	0.49 J	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5.0 U	500 UD	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1.0 U	100 UD	1 U	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	250 UD	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1.0 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	0.50 U	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 U	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2.0 U	
Acetone	--	50	µg/L	5.2	12	5.9	6	5.0 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Bromoform	--	50	µg/L	2 U	1 J-V	2 UJV	2 UJV	2.0 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	0.97 J	2.5 U	2.5 U	0.79 J	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-2	MW-2	MW-2	MW-2	MW-2
				Sample Date:	06/13/2017	08/31/2017	12/07/2017	03/15/2018	12/4/2018
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>11</b>	3.8	5	<b>5.3</b>	<b>8.1</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	NA	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.5 U	0.50 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5.0 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 UJV	1.0 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	75 UD	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	100 UD	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	100 UD	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	50 UD	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	25 UD	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	100 UD	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	12000 UD	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	100 UD	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	250 UD	5 U	<b>58</b>	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	100 UD	2 U	1.6 J	2 U	2 U	2 U
Bromomethane	5	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	120 UD	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cymene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	250 UD	5 U	3.9 J	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	250 UD	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	120 UD	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-3
				Sample Date:	8/20/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	5	--	µg/L	<b>2700 D</b>	<b>32</b>	0.5 U	4.2	2.8	
Toluene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	25 UD	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	120 UD	2.5 U	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	<b>28 D</b>	0.5 U	0.5 U	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	250 UD	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	50 UD	1 U	1 U	1 U	1 U	
Xylenes	5	--	µg/L	120 UD	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-3	MW-3	MW-3	MW-3	MW-5S
				08/31/2017	08/31/2017	03/15/2018	12/4/2018	8/19/2014
Normal or Field Duplicate:				N	FD	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	0.50 U	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2.0 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 U	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2.0 U	2.0 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				MW-3	MW-3	MW-3	MW-3	MW-5S
				08/31/2017	08/31/2017	03/15/2018	12/4/2018	8/19/2014
Normal or Field Duplicate:				N	FD	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.31 J	0.50 U
Bromoform	--	50	µg/L	2 U	2 UJV	2 UJV	2.0 U	2.0 U
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 UJV	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.50 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	1.5 J	2.5 U
Chloromethane	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 UJV	0.5 U	0.50 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5.0 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-3	MW-3	MW-3	MW-3	MW-5S
				Sample Date:	08/31/2017	08/31/2017	03/15/2018	12/4/2018	8/19/2014
				Normal or Field Duplicate:	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	3.3	3	2.3	3.1	0.54	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	NA	NA	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 UJV	0.5 U	0.50 U	0.50 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5.0 U	5.0 U	
Vinyl Chloride	2	--	µg/L	1 UJV	1 U	1 UJV	1.0 U	1.0 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	FD	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2.0 U	2 U	2 U	2 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2.0 U	2 U	2 U	2 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1.0 U	1 U	1 U	1 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	0.50 U	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2.0 U	2 U	2 U	2 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 U	250 RV	250 RV	250 RV	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5.0 U	5 U	5 U	5 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2.0 U	2 U	2 U	2 U	2 U	
Acetone	--	50	µg/L	5.0 U	1.6 J	5 U	5 U	11	
Acrylonitrile	5	--	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Benzene	1	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	FD	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.50 U	0.77	0.5 U	0.5 U	0.5 U	
Bromoform	--	50	µg/L	2.0 U	2 U	2 U	2 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	<b>7</b>	--	µg/L	2.5 U	<b>9.8</b>	2.6	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 UJV	2.5 UJV	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
				Sample Date:	8/19/2014	07/14/2016	08/18/2016	02/28/2017	06/13/2017
				Normal or Field Duplicate:	FD	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.54	1	0.82	0.25 J	0.5 U	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	NA	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.50 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5.0 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1.0 U	1 U	1 U	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1.0 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	0.50 U	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 U	250 U	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	2 U
Bromomethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-5S	MW-5S	MW-5S	MW-6S	MW-6S
				Sample Date:	08/31/2017	03/15/2018	12/4/2018	8/18/2014	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	0.5 U	0.5 U	0.50 U	<b>7.2</b>	3.4	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Vinyl Chloride	2	--	µg/L	1 UJV	1 UJV	1.0 U	1.0 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	3 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	4 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	4 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	2 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	4 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	500 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	10 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	4 U	
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	10 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	10 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1	
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	4 U	
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	10 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Chloroform	<b>7</b>	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	<b>12</b>	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.4 J	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	10 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	10 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.4 J	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	10 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	10 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Naphthalene	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 UJV	
N-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
T-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-6S	MW-6S	MW-6S	MW-6S	MW-8
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	07/14/2016
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	1.8	0.5 U	0.5 U	0.24 J	<b>140</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	1 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	2.9	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	10 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 UJV	2 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	08/18/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:				
				Sample Date:				
				MW-8	MW-8	MW-8	MW-8	MW-8
Normal or Field Duplicate:				08/18/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				N	FD	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	1.9	1.9	0.5 U	0.5 U	0.5 U
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 U	2 UJV
Bromomethane	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	<b>7</b>	--	µg/L	<b>19</b>	<b>19</b>	1.1 J	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2 J	2 J	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	--	µg/L	2 J	2 J	2.5 U	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-8
				Sample Date:	08/18/2016	08/18/2016	02/28/2017	06/13/2017	08/31/2017
				Normal or Field Duplicate:	N	FD	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>140</b>	<b>140</b>	<b>36</b>	<b>22</b>	<b>20</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJV	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 UJV	2.5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	2.8	2.8	0.9	0.49 J	0.52	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:	12/07/2017	03/15/2018	12/4/2018	12/4/2018	07/14/2016
				Normal or Field Duplicate:	N	N	N	FD	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1.0 U	1.0 U	1 U	
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	0.50 U	0.50 U	NA	
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 U	250 U	250 RV	
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
2-Hexanone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2.0 U	2.0 U	2 U	
Acetone	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Acrylonitrile	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Benzene	1	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:	12/07/2017	03/15/2018	12/4/2018	12/4/2018	07/14/2016
				Normal or Field Duplicate:	N	N	N	FD	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Bromoform	--	50	µg/L	2 UJV	2 UJV	2.0 U	2.0 U	2 U	
Bromomethane	5	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	0.78 J	0.96 J	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 UJV	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-8	MW-8	MW-8	MW-8	MW-9
				Sample Date:	12/07/2017	03/15/2018	12/4/2018	12/4/2018	07/14/2016
				Normal or Field Duplicate:	N	N	N	FD	N
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>20</b>	<b>17</b>	<b>17</b>	<b>18</b>	<b>20</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	NA	NA	0.5 U	
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Trichloroethylene (TCE)	5	--	µg/L	0.52	0.49 J	0.40 J	0.38 J	0.61	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Vinyl Acetate	--	--	µg/L	5 U	5 U	5.0 U	5.0 U	5 U	
Vinyl Chloride	2	--	µg/L	1 U	1 UJV	1.0 U	1.0 U	1 U	
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 UJV
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV	2.5 UJV
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 RV	250 RV	250 RV	250 RV	250 RV
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Acrylonitrile	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
				Normal or Field Duplicate:	N	N	N	N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Bromodichloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Bromoform	--	50	µg/L	2 U	2 U	2 U	2 UJV	2 UJV	
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Carbon Disulfide	--	60	µg/L	5 U	5 U	5 U	5 U	5 U	
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Chloroform	7	--	µg/L	2.5 U	0.84 J	2.5 U	2.5 U	2.5 U	
Chloromethane	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	
Cymene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Dibromochloromethane	--	50	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Dibromomethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Dichlorodifluoromethane	5	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5 U	5 U	5 U	5 U	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Naphthalene	--	10	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
N-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	
Styrene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJV	
T-Butylbenzene	5	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 U	
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 U	

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

				Sample Designation:	MW-9	MW-9	MW-9	MW-9	MW-9
				Sample Date:	08/18/2016	02/28/2017	06/13/2017	08/31/2017	12/07/2017
				Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units						
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>24</b>	<b>35</b>	<b>33</b>	<b>12</b>	<b>20</b>	
Toluene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.5 U	0.5 U	0.5 UJV	0.5 U	0.5 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 UJV	2.5 U	2.5 U	2.5 U	2.5 UJV	2.5 UJV
Trichloroethylene (TCE)	5	--	µg/L	0.79	0.75	0.64	0.45 J	0.45 J	
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	2	--	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	--	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	
				03/15/2018	12/4/2018
Normal or Field Duplicate:				N	N
1,1,1,2-Tetrachloroethane	5	--	µg/L	2.5 U	2.5 U
1,1,1-Trichloroethane	5	--	µg/L	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	--	µg/L	0.5 U	0.50 U
1,1,2-Trichloroethane	1	--	µg/L	1.5 U	1.5 U
1,1-Dichloroethane	5	--	µg/L	2.5 U	2.5 U
1,1-Dichloroethene	5	--	µg/L	0.5 U	0.50 U
1,1-Dichloropropene	5	--	µg/L	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	--	µg/L	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	5	--	µg/L	2 U	2.0 U
1,2,4-Trichlorobenzene	5	--	µg/L	2.5 U	2.5 U
1,2,4-Trimethylbenzene	5	--	µg/L	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	--	µg/L	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	--	µg/L	2 U	2.0 U
1,2-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U
1,2-Dichloroethane	0.6	--	µg/L	0.5 U	0.50 U
1,2-Dichloropropane	1	--	µg/L	1 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	--	µg/L	2.5 U	2.5 U
1,3-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U
1,3-Dichloropropane	5	--	µg/L	2.5 U	2.5 U
1,3-Dichloropropene	0.4	--	µg/L	NA	0.50 U
1,4-Dichlorobenzene	3	--	µg/L	2.5 U	2.5 U
1,4-Diethyl Benzene	--	--	µg/L	2 U	2.0 U
1,4-Dioxane (P-Dioxane)	--	--	µg/L	250 RV	250 U
2,2-Dichloropropane	5	--	µg/L	2.5 U	2.5 U
2-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U
2-Hexanone	--	50	µg/L	5 U	5.0 U
4-Chlorotoluene	5	--	µg/L	2.5 U	2.5 U
4-Ethyltoluene	--	--	µg/L	2 U	2.0 U
Acetone	--	50	µg/L	5 U	5.0 U
Acrylonitrile	5	--	µg/L	5 U	5.0 U
Benzene	1	--	µg/L	0.5 U	0.50 U
Bromobenzene	5	--	µg/L	2.5 U	2.5 U

**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	
				03/15/2018	12/4/2018
				Normal or Field Duplicate:	
				N	N
Bromochloromethane	5	--	µg/L	2.5 U	2.5 U
Bromodichloromethane	--	50	µg/L	0.5 U	0.50 U
Bromoform	--	50	µg/L	2 UJV	2.0 U
Bromomethane	5	--	µg/L	2.5 UJV	2.5 U
Carbon Disulfide	--	60	µg/L	5 U	5.0 U
Carbon Tetrachloride	5	--	µg/L	0.5 U	0.50 U
Chlorobenzene	5	--	µg/L	2.5 U	2.5 U
Chloroethane	5	--	µg/L	2.5 U	2.5 U
Chloroform	7	--	µg/L	2.5 U	2.5 U
Chloromethane	--	--	µg/L	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	--	µg/L	2.5 U	2.5 U
Cis-1,3-Dichloropropene	--	5	µg/L	0.5 U	0.50 U
Cymene	5	--	µg/L	2.5 U	2.5 U
Dibromochloromethane	--	50	µg/L	0.5 U	0.50 U
Dibromomethane	5	--	µg/L	5 U	5.0 U
Dichlorodifluoromethane	5	--	µg/L	5 U	5.0 U
Dichloroethylenes	5	--	µg/L	2.5 U	2.5 U
Diethyl Ether (Ethyl Ether)	--	--	µg/L	2.5 UJV	2.5 U
Ethylbenzene	5	--	µg/L	2.5 U	2.5 U
Hexachlorobutadiene	0.5	--	µg/L	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	--	µg/L	2.5 U	2.5 U
m,p-Xylene	5	--	µg/L	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	--	50	µg/L	5 U	5.0 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	--	µg/L	5 U	5.0 U
Methylene Chloride	5	--	µg/L	2.5 U	2.5 U
Naphthalene	--	10	µg/L	2.5 U	2.5 U
N-Butylbenzene	5	--	µg/L	2.5 U	2.5 U
N-Propylbenzene	5	--	µg/L	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	5	--	µg/L	2.5 U	2.5 U
Sec-Butylbenzene	5	--	µg/L	2.5 U	2.5 U
Styrene	5	--	µg/L	2.5 U	2.5 U
T-Butylbenzene	5	--	µg/L	2.5 U	2.5 U
Tert-Butyl Methyl Ether	--	10	µg/L	2.5 U	2.5 U



**Table 1. Summary of Historic, Baseline, and Post-Remediation Volatile Organic Compounds in Groundwater  
 Marcus Garvey Apartments, Brooklyn, New York**

Parameter	NYSDEC Ambient Water-Quality Standards	NYSDEC Ambient Water-Quality Guidance Values	Units	Sample Designation:	
				MW-9	MW-9
				Sample Date:	
				03/15/2018	12/4/2018
				Normal or Field Duplicate:	
				N	N
Tetrachloroethylene (PCE)	<b>5</b>	--	µg/L	<b>13</b>	<b>14</b>
Toluene	5	--	µg/L	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	--	µg/L	0.5 U	NA
Trans-1,2-Dichloroethene	5	--	µg/L	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	--	µg/L	0.5 U	0.50 U
Trans-1,4-Dichloro-2-Butene	--	--	µg/L	2.5 U	2.5 U
Trichloroethylene (TCE)	5	--	µg/L	0.4 J	0.51
Trichlorofluoromethane	5	--	µg/L	2.5 U	2.5 U
Vinyl Acetate	--	--	µg/L	5 U	5.0 U
Vinyl Chloride	2	--	µg/L	1 UJV	1.0 U
Xylenes	5	--	µg/L	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation

AWQSGVs - Ambient Water-Quality Standards and Guidance Values

µg/L -Micrograms per liter

J - Estimated Value

U - Compound was analyzed for but not detected

D - A secondary analysis after dilution due to exceedance  
 of the calibration range in the original sample

V - Value altered or qualifier added during data validation

R - Sample results rejected by validator

UJ - Analyte was not detected. The associated reported quantitation limit is an estimate

FD - Duplicate

-- No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENTS**

1. Laboratory Analytical Report
2. Field Sampling Sheets

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 1**

Laboratory Analytical Report



## ANALYTICAL REPORT

Lab Number:	L1849453
Client:	Roux Env. Eng. & Geology, DPC 209 Shafter Street Islandia, NY 11749
ATTN:	Levi Curnutte
Phone:	(631) 232-2600
Project Name:	MARCUS GARVEY
Project Number:	2158.0002Y004
Report Date:	12/10/18

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1849453-01	MW-8	WATER	BROOKLYN, NY	12/04/18 07:30	12/04/18
L1849453-02	MW-9	WATER	BROOKLYN, NY	12/04/18 07:40	12/04/18
L1849453-03	DUP-120418	WATER	BROOKLYN, NY	12/04/18 07:35	12/04/18
L1849453-04	MW-1	WATER	BROOKLYN, NY	12/04/18 09:00	12/04/18
L1849453-05	MW-3	WATER	BROOKLYN, NY	12/04/18 08:20	12/04/18
L1849453-06	MW-2	WATER	BROOKLYN, NY	12/04/18 08:30	12/04/18
L1849453-07	MW-5S	WATER	BROOKLYN, NY	12/04/18 09:40	12/04/18
L1849453-08	FIELD BLANK	WATER	BROOKLYN, NY	12/04/18 08:00	12/04/18
L1849453-09	TRIP BLANK	WATER	BROOKLYN, NY	11/30/18 00:00	12/04/18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18


**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 12/10/18

# ORGANICS



# VOLATILES

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-01  
 Client ID: MW-8  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:30  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/06/18 22:07  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	17		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-01  
**Client ID:** MW-8  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 07:30  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.40	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-01  
 Client ID: MW-8  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:30  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	95		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-02  
 Client ID: MW-9  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:40  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/06/18 22:35  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	14		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-02  
**Client ID:** MW-9  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 07:40  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.51		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-02  
 Client ID: MW-9  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:40  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	98		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-03  
 Client ID: DUP-120418  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:35  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/06/18 23:03  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	18		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-03  
**Client ID:** DUP-120418  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 07:35  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.38	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-03  
 Client ID: DUP-120418  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 07:35  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-04  
 Client ID: MW-1  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 09:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/06/18 23:31  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	21		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-04  
**Client ID:** MW-1  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 09:00  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	0.29	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-04  
 Client ID: MW-1  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 09:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-05  
 Client ID: MW-3  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:20  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/06/18 23:59  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	1.5	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	3.1		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.31	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-05  
 Client ID: MW-3  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:20  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-05  
 Client ID: MW-3  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:20  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-06  
 Client ID: MW-2  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:30  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/07/18 00:27  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.79	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	8.1		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-06  
**Client ID:** MW-2  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 08:30  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-06  
 Client ID: MW-2  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:30  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-07  
 Client ID: MW-5S  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 09:40  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/07/18 00:55  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-07  
**Client ID:** MW-5S  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 12/04/18 09:40  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-07  
 Client ID: MW-5S  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 09:40  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/07/18 01:23  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-08  
 Client ID: FIELD BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 12/04/18 08:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-09  
 Client ID: TRIP BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 11/30/18 00:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/07/18 01:51  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

**Lab ID:** L1849453-09  
**Client ID:** TRIP BLANK  
**Sample Location:** BROOKLYN, NY

**Date Collected:** 11/30/18 00:00  
**Date Received:** 12/04/18  
**Field Prep:** Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**SAMPLE RESULTS**

Lab ID: L1849453-09  
 Client ID: TRIP BLANK  
 Sample Location: BROOKLYN, NY

Date Collected: 11/30/18 00:00  
 Date Received: 12/04/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/06/18 20:15  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1186809-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/06/18 20:15  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1186809-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/06/18 20:15  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1186809-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1849453

Project Number: 2158.0002Y004

Report Date: 12/10/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1186809-3 WG1186809-4								
Methylene chloride	98		91		70-130	7		20
1,1-Dichloroethane	100		91		70-130	9		20
Chloroform	100		92		70-130	8		20
Carbon tetrachloride	100		89		63-132	12		20
1,2-Dichloropropane	96		89		70-130	8		20
Dibromochloromethane	90		86		63-130	5		20
1,1,2-Trichloroethane	97		92		70-130	5		20
Tetrachloroethene	100		91		70-130	9		20
Chlorobenzene	100		91		75-130	9		20
Trichlorofluoromethane	100		87		62-150	14		20
1,2-Dichloroethane	96		90		70-130	6		20
1,1,1-Trichloroethane	100		90		67-130	11		20
Bromodichloromethane	92		85		67-130	8		20
trans-1,3-Dichloropropene	87		84		70-130	4		20
cis-1,3-Dichloropropene	92		88		70-130	4		20
1,1-Dichloropropene	100		90		70-130	11		20
Bromoform	84		79		54-136	6		20
1,1,1,2-Tetrachloroethane	92		90		67-130	2		20
Benzene	98		89		70-130	10		20
Toluene	100		91		70-130	9		20
Ethylbenzene	100		90		70-130	11		20
Chloromethane	86		75		64-130	14		20
Bromomethane	60		57		39-139	5		20



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1849453

Project Number: 2158.0002Y004

Report Date: 12/10/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1186809-3 WG1186809-4								
Vinyl chloride	110		99		55-140	11		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	100		92		61-145	8		20
trans-1,2-Dichloroethene	110		94		70-130	16		20
Trichloroethene	100		90		70-130	11		20
1,2-Dichlorobenzene	98		88		70-130	11		20
1,3-Dichlorobenzene	100		90		70-130	11		20
1,4-Dichlorobenzene	100		90		70-130	11		20
Methyl tert butyl ether	95		94		63-130	1		20
p/m-Xylene	105		95		70-130	10		20
o-Xylene	100		90		70-130	11		20
cis-1,2-Dichloroethene	100		93		70-130	7		20
Dibromomethane	93		88		70-130	6		20
1,2,3-Trichloropropane	92		90		64-130	2		20
Acrylonitrile	91		94		70-130	3		20
Styrene	90		85		70-130	6		20
Dichlorodifluoromethane	79		67		36-147	16		20
Acetone	51	Q	65		58-148	24	Q	20
Carbon disulfide	100		88		51-130	13		20
2-Butanone	75		82		63-138	9		20
Vinyl acetate	85		83		70-130	2		20
4-Methyl-2-pentanone	80		80		59-130	0		20
2-Hexanone	68		76		57-130	11		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1849453

Project Number: 2158.0002Y004

Report Date: 12/10/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1186809-3 WG1186809-4								
Bromochloromethane	100		94		70-130	6		20
2,2-Dichloropropane	110		95		63-133	15		20
1,2-Dibromoethane	92		88		70-130	4		20
1,3-Dichloropropane	96		91		70-130	5		20
1,1,1,2-Tetrachloroethane	95		90		64-130	5		20
Bromobenzene	98		89		70-130	10		20
n-Butylbenzene	100		87		53-136	14		20
sec-Butylbenzene	100		89		70-130	12		20
tert-Butylbenzene	100		88		70-130	13		20
o-Chlorotoluene	84		88		70-130	5		20
p-Chlorotoluene	99		87		70-130	13		20
1,2-Dibromo-3-chloropropane	77		76		41-144	1		20
Hexachlorobutadiene	80		71		63-130	12		20
Isopropylbenzene	100		89		70-130	12		20
p-Isopropyltoluene	100		87		70-130	14		20
Naphthalene	83		82		70-130	1		20
n-Propylbenzene	100		89		69-130	12		20
1,2,3-Trichlorobenzene	87		84		70-130	4		20
1,2,4-Trichlorobenzene	91		85		70-130	7		20
1,3,5-Trimethylbenzene	100		89		64-130	12		20
1,2,4-Trimethylbenzene	100		88		70-130	13		20
1,4-Dioxane	48	Q	76		56-162	45	Q	20
p-Diethylbenzene	99		87		70-130	13		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MARCUS GARVEY

Lab Number: L1849453

Project Number: 2158.0002Y004

Report Date: 12/10/18

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1186809-3 WG1186809-4								
p-Ethyltoluene	100		91		70-130	9		20
1,2,4,5-Tetramethylbenzene	93		83		70-130	11		20
Ethyl ether	97		94		59-134	3		20
trans-1,4-Dichloro-2-butene	54	Q	56	Q	70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		97		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	96		97		70-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1849453

**Project Number:** 2158.0002Y004

**Report Date:** 12/10/18

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1186809-6 WG1186809-7 QC Sample: L1849453-04 Client ID: MW-1												
Methylene chloride	ND	10	11	110		10	100		70-130	10		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	10	100		10	100		63-132	0		20
1,2-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
Dibromochloromethane	ND	10	9.6	96		9.5	95		63-130	1		20
1,1,2-Trichloroethane	ND	10	10	100		10	100		70-130	0		20
Tetrachloroethene	21	10	24	30	Q	23	20	Q	70-130	4		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		10	100		62-150	10		20
1,2-Dichloroethane	ND	10	10	100		10	100		70-130	0		20
1,1,1-Trichloroethane	ND	10	11	110		10	100		67-130	10		20
Bromodichloromethane	ND	10	9.8	98		10	100		67-130	2		20
trans-1,3-Dichloropropene	ND	10	9.1	91		9.0	90		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.4	94		9.5	95		70-130	1		20
1,1-Dichloropropene	ND	10	11	110		10	100		70-130	10		20
Bromoform	ND	10	8.8	88		8.8	88		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		10	100		67-130	0		20
Benzene	ND	10	10	100		10	100		70-130	0		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		9.8	98		70-130	2		20
Chloromethane	ND	10	9.4	94		9.0	90		64-130	4		20
Bromomethane	ND	10	7.9	79		8.8	88		39-139	11		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1849453

**Project Number:** 2158.0002Y004

**Report Date:** 12/10/18

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1186809-6 WG1186809-7 QC Sample: L1849453-04 Client ID: MW-1												
Vinyl chloride	ND	10	13	130		13	130		55-140	0		20
Chloroethane	ND	10	15	150	Q	14	140	Q	55-138	7		20
1,1-Dichloroethene	ND	10	11	110		11	110		61-145	0		20
trans-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Trichloroethene	0.29J	10	10	100		11	110		70-130	10		20
1,2-Dichlorobenzene	ND	10	9.5	95		9.6	96		70-130	1		20
1,3-Dichlorobenzene	ND	10	9.8	98		9.8	98		70-130	0		20
1,4-Dichlorobenzene	ND	10	9.6	96		9.6	96		70-130	0		20
Methyl tert butyl ether	ND	10	11	110		11	110		63-130	0		20
p/m-Xylene	ND	20	21	105		20	100		70-130	5		20
o-Xylene	ND	20	20	100		20	100		70-130	0		20
cis-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Dibromomethane	ND	10	10	100		10	100		70-130	0		20
1,2,3-Trichloropropane	ND	10	9.9	99		10	100		64-130	1		20
Acrylonitrile	ND	10	11	110		11	110		70-130	0		20
Styrene	ND	20	18	90		18	90		70-130	0		20
Dichlorodifluoromethane	ND	10	8.0	80		7.8	78		36-147	3		20
Acetone	ND	10	8.3	83		8.9	89		58-148	7		20
Carbon disulfide	ND	10	10	100		10	100		51-130	0		20
2-Butanone	ND	10	9.2	92		8.8	88		63-138	4		20
Vinyl acetate	ND	10	8.7	87		8.6	86		70-130	1		20
4-Methyl-2-pentanone	ND	10	9.2	92		9.2	92		59-130	0		20
2-Hexanone	ND	10	8.4	84		8.6	86		57-130	2		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1849453

**Project Number:** 2158.0002Y004

**Report Date:** 12/10/18

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1186809-6 WG1186809-7 QC Sample: L1849453-04 Client ID: MW-1												
Bromochloromethane	ND	10	11	110		10	100		70-130	10		20
2,2-Dichloropropane	ND	10	9.0	90		8.7	87		63-133	3		20
1,2-Dibromoethane	ND	10	9.9	99		9.7	97		70-130	2		20
1,3-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		9.8	98		64-130	2		20
Bromobenzene	ND	10	9.7	97		9.7	97		70-130	0		20
n-Butylbenzene	ND	10	9.4	94		9.4	94		53-136	0		20
sec-Butylbenzene	ND	10	9.7	97		9.8	98		70-130	1		20
tert-Butylbenzene	ND	10	9.5	95		9.5	95		70-130	0		20
o-Chlorotoluene	ND	10	8.1	81		8.2	82		70-130	1		20
p-Chlorotoluene	ND	10	9.4	94		9.4	94		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	8.9	89		8.1	81		41-144	9		20
Hexachlorobutadiene	ND	10	7.6	76		7.6	76		63-130	0		20
Isopropylbenzene	ND	10	9.6	96		9.5	95		70-130	1		20
p-Isopropyltoluene	ND	10	9.3	93		9.4	94		70-130	1		20
Naphthalene	ND	10	8.7	87		9.2	92		70-130	6		20
n-Propylbenzene	ND	10	9.6	96		9.6	96		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	9.0	90		9.0	90		70-130	0		20
1,2,4-Trichlorobenzene	ND	10	8.8	88		8.9	89		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	9.6	96		9.6	96		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	9.4	94		9.6	96		70-130	2		20
1,4-Dioxane	ND	500	500	100		460	92		56-162	8		20
p-Diethylbenzene	ND	10	9.2	92		9.2	92		70-130	0		20

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** MARCUS GARVEY

**Lab Number:** L1849453

**Project Number:** 2158.0002Y004

**Report Date:** 12/10/18

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1186809-6 WG1186809-7 QC Sample: L1849453-04 Client ID: MW-1												
p-Ethyltoluene	ND	10	9.7	97		9.7	97		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10	8.6	86		8.9	89		70-130	3		20
Ethyl ether	ND	10	10	100		11	110		59-134	10		20
trans-1,4-Dichloro-2-butene	ND	10	6.5	65	Q	6.9	69	Q	70-130	6		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	99		100		70-130
4-Bromofluorobenzene	91		93		70-130
Dibromofluoromethane	98		98		70-130
Toluene-d8	97		97		70-130

**Project Name:** MARCUS GARVEY**Lab Number:** L1849453**Project Number:** 2158.0002Y004**Report Date:** 12/10/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1849453-01A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-01B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-01C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-02A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-02B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-02C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-03A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-03B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-03C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04A1	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04A2	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04B1	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04B2	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04C1	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-04C2	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-05A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-05B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-05C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-06A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-06B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

Serial\_No:12101812:44  
**Lab Number:** L1849453  
**Report Date:** 12/10/18

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1849453-06C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-07A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-07B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-07C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-08A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-08B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-08C	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-09A	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)
L1849453-09B	Vial HCl preserved	A	NA		5.0	Y	Absent		NYTCL-8260(14)

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1849453  
**Report Date:** 12/10/18

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 6860:** SCM: Perchlorate

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522.**

#### Non-Potable Water


**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.


**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02046 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page of	Date Rec'd in Lab 12/4/18	ALPHA Job # L1849453							
	<b>Project Information</b> Project Name: <u>MARCUS GARNEY</u> Project Location: <u>BROOKLYN, NY</u> Project # <u>2158 0002 Y004</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #						
	<b>Client Information</b> Client: <u>ROUX</u> Address: <u>209 SHAFER ST. ISLANDIA, NY 11749</u> Phone: <u>631-2322600</u> Fax: <u>631-2329898</u> Email: <u>LCURNUITE@ROUXINC.COM</u>		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:						
<b>Turn<sup>o</sup>Around Time</b> Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/>									
<b>Other project specific requirements/comments:</b> Please specify Metals or TAL.						<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles	
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOC (240)					Sample Specific Comments
49453-01	MW-8	12-4-18	0730	GW	MS	X					
02	MW-9	12-4-18	0740	GW	AF	X					
03	DUP-120418	12-4-18	0735	GW	MS	X					
04	MW-1	12-4-18	0900	GW	MS	X					
↓	MW-1-MS	12-4-18	0905	GW	MS	X					
↓	MW-1-MSD	12-4-18	0910	GW	MS	X					
05	MW-3	12-4-18	0820	GW	AF	X					
06	MW-2	12-4-18	0830	GW	MS	X					
07	MW-5S	12-4-18	0940	GW	MS	X					
08	FIELD BLANK	12-4-18	0800	FB	MS	X					
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube Q = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: <u>V</u> Preservative: <u>B</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)			
Relinquished By:		Date/Time		Received By:		Date/Time					
<u>Joan Hagedorn</u> ROUX		<u>12/4/18 1400</u>		<u>Joan Hagedorn</u>		<u>12/4/18 1400</u>					
<u>Joan Hagedorn</u>		<u>12/4/18 1700</u>		<u>D. Santos</u>		<u>12/4/18 1830</u>					
<u>D. Santos</u>		<u>12/4/18 2230</u>		<u>Bonnie Matt</u>		<u>12/4/18 2230</u>					



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>2</u> of <u>2</u>	Date Rec'd in Lab <u>12/4/18</u>	ALPHA Job # <u>L1849453</u>	
		Project Information Project Name: <u>MARCUS GARNEY</u> Project Location: <u>BROOKLYN, NY</u> Project # <u>2158.0002/004</u> (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #	
Client Information Client: <u>ROUX</u> Address: <u>209 SHAFER ST.</u> <u>ISLANDIA, NY 11749</u> Phone: <u>631-2322600</u> Fax: <u>631-2329898</u> Email: <u>LCURNOTTE@ROUXINC.COM</u>		Project Manager: <u>LEVI CURNOTTE</u> ALPHAQuote #:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input checked="" type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/>		<b>ANALYSIS</b>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample Specific Comments	
Other project specific requirements/comments:		Please specify Metals or TAL.		(028) VOCs (826)		Total Bottles	
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date      Time			
<u>49453-09</u>		<u>TRIP BLANK</u>		<u>11-30-18</u> <u>-</u>		<u>LAB</u> <u>KS</u>	
Preservative Code A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacleria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>V</u> Preservative <u>B</u>	
Relinquished By:		Date/Time		Received By:		Date/Time	
<u>Benjamin Roux</u>		<u>12/4/18 1400</u>		<u>Juan Hernandez</u>		<u>12/4/18 1400</u>	
<u>Juan Hernandez</u>		<u>12/4/18 1700</u>		<u>D. Santos</u>		<u>12/4/18 1830</u>	
<u>D. Santos</u>		<u>12/4/18 2230</u>		<u>Bonnie Matt</u>		<u>12/4/18 20:30</u>	

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

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**ATTACHMENT 2**

Field Sampling Sheets



Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-1 Weather: 35°F, cloudy

Date: 12/4/2018 Purge Water Disposal: 55 gal drums

Sampled By: ALFREDO F. MICHAEL S. Well Diameter / Type: 1" PVC

Depth to Product (ft): \_\_\_\_\_ Water Column (ft): 8-61

Depth to Water(ft): 11.51 Volume of Water in Well (gal) 0-35

Depth to Bottom (ft): 20.12 Volume of Water to Remove (gal): \_\_\_\_\_

well diameter: 1 in 2 in 4 in 6 in 8 in  
gallons per foot: 0.041 0.163 0.653 1.469 2.611

Start Purging: 0834 Purge Rate: 150 mL/min

End Purging: 0858 Volume of Water Removed (gal): 1

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: CLEAR

Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
(analyses / no. bottles)

Duplicate Sample: MW-1 - MS (0905) Laboratory: Alpha Analytical  
MW-1 - MS (0910)

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0837	—	11.51	6.20	0.912	52.11	11.08	17.37	236
0840	—	11.51	6.22	0.906	26.72	8.90	17.43	235
0843	—	11.51	6.22	0.905	15.40	6.78	17.49	235
0846	—	11.51	6.22	0.905	12.32	6.69	17.51	235
0849	—	11.51	6.23	0.905	10.35	6.57	17.53	234
0852	—	11.51	6.23	0.905	8.02	6.50	17.53	234
0855	—	11.51	6.23	0.905	7.33	6.44	17.54	234
0858	—	11.51	6.23	0.905	7.10	6.41	17.54	234

SAMPLE TIME: 0900

### Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** MW-2 **Weather:** in Doors  
**Date:** 12/4/2018 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** MS **Well Diameter / Type:** pvc stick up  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water (ft):** 11.70 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 20.03 **Volume of Water to Remove (gal):** ~ 2 GAL  
**well diameter:** 1 in **2 in**      **4 in**      **6 in**      **8 in**  
**gallons per foot:** 0.041 **0.163**      **0.653**      **1.469**      **2.611**  
**Start Purging:** 0800 **Purge Rate:** 160 mL/min  
**End Purging:** 0830 **Volume of Water Removed (gal):** ~ 2 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** clear  
**Samples Collected:** \_\_\_\_\_ **VOCs (3 vials / HCl)**  
**(analyses / no. bottles)** \_\_\_\_\_  
**Duplicate Sample:** NO **Laboratory:** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0800		11.70	6.61	1.08	135	8.83	16.97	270
0803		11.70	6.47	0.962	114	9.00	16.53	285
0806		11.71	6.45	0.892	91.2	9.06	16.59	287
0809		11.71	6.38	0.788	51.2	9.08	16.70	278
0812		11.71	6.43	0.761	41.0	9.08	16.74	273
0815		11.71	6.40	0.745	26.0	9.09	16.80	277
0820		11.71	6.37	0.725	15.1	9.09	16.83	279
0825		11.71	6.34	0.720	4.6	9.16	16.86	281
0830		11.71	6.30	0.715	0.0	9.11	16.88	282

Sample Time: 0830

Well Sampling Purge Log

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-3 Weather: 35°F, CLOUDY

Date: 12/4/2018 Purge Water Disposal: 55 gal drums

Sampled By: ALFREDO F. Well Diameter / Type: 1" PVC

Depth to Product (ft): - Water Column (ft): 8.69

Depth to Water(ft): 11.36 Volume of Water in Well (gal): 0.35

Depth to Bottom (ft): 20.05 Volume of Water to Remove (gal): \_\_\_\_\_

well diameter:	<u>1 in</u>	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 0752 Purge Rate: 100 ml/min

End Purging: 0819 Volume of Water Removed (gal): 0.75

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: CLEAR

Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)

(analyses / no. bottles)

Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0755	-	11.36	6.19	1.42	17.80	8.10	16.22	224
0758	-	11.36	6.19	0.986	15.41	8.02	16.29	228
0801	-	11.36	6.20	0.981	15.03	7.64	16.36	230
0804	-	11.36	6.21	0.973	14.62	7.55	16.41	230
0807	-	11.36	6.21	0.972	13.79	7.36	16.57	231
0810	-	11.36	6.21	0.972	13.64	7.29	16.70	231
0813	-	11.36	6.21	0.972	13.06	7.23	16.79	231
0816	-	11.36	6.22	0.972	12.99	7.14	16.83	231
0819	-	11.36	6.22	0.972	12.91	7.07	16.98	232

SAMPLE TIME = 0820

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003  
 Site Location: 650 Rockaway Avenue, Brooklyn, NY  
 Well No: MW-55 Weather: 34°F, CLOUDY  
 Date: 12/4/2018 Purge Water Disposal: 55 gal drums  
 Sampled By: ALFREDO F. Well Diameter / Type: 2" PVC  
MICHAEL S.  
 Depth to Product (ft): \_\_\_\_\_ Water Column (ft): 9.18  
 Depth to Water (ft): 20.82 Volume of Water in Well (gal): 1.49  
 Depth to Bottom (ft): 30.00 Volume of Water to Remove (gal): \_\_\_\_\_  
 well diameter: 1 in (2 in) 4 in 6 in 8 in  
 gallons per foot: 0.041 0.163 0.653 1.469 2.611  
 Start Purging: 0911 Purge Rate: 150 ml/min  
 End Purging: 0938 Volume of Water Removed (gal): 1.125  
 Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow  
 Physical Appearance/ Comments: CLEAR  
 Samples Collected: \_\_\_\_\_ VOCs (3 vials / HCl)  
 (analyses / no. bottles) \_\_\_\_\_  
 Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0914	—	20.82	6.17	0.832	56.70	16.94	16.79	235
0917	—	20.82	6.17	0.826	23.54	11.32	16.82	238
0920	—	20.82	6.18	0.823	17.62	9.04	16.84	239
0923	—	20.82	6.18	0.823	16.01	8.65	16.80	242
0926	—	20.82	6.18	0.822	13.16	8.30	16.77	244
0929	—	20.82	6.18	0.822	12.43	7.57	16.73	245
0932	—	20.82	6.18	0.822	12.00	7.20	16.70	245
0935	—	20.82	6.18	0.822	11.91	7.11	16.65	246
0938	—	20.82	6.18	0.822	11.81	7.06	16.63	246

SAMPLE TIME = 0940



## Well Sampling Purge Log

**Client:** Marcus Garvey **Project Number:** 2158.0002Y003  
**Site Location:** 650 Rockaway Avenue, Brooklyn, NY  
**Well No:** mw-8 **Weather:** cloudy 40°F  
**Date:** 12/4/2018 **Purge Water Disposal:** 55 gal drums  
**Sampled By:** MS **Well Diameter / Type:** 1/2" Musk Round  
**Depth to Product (ft):** — **Water Column (ft):** \_\_\_\_\_  
**Depth to Water(ft):** 20.31 **Volume of Water in Well (gal):** \_\_\_\_\_  
**Depth to Bottom (ft):** 28.68 **Volume of Water to Remove (gal):** \_\_\_\_\_  

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

**Start Purging:** 0700 **Purge Rate:** 100 mL/min  
**End Purging:** 0730 **Volume of Water Removed (gal):** ~2 GAL  
**Method of Purge:** Peristaltic Pump **Method of Sampling:** Low-Flow  
**Physical Appearance/ Comments:** clear  
**Samples Collected:** ✓ **VOCs (3 vials / HCl)** \_\_\_\_\_  
**Duplicate Sample:** yes **Laboratory:** Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm - S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature °C	ORP mV
0700		20.31	5.94	0.741	11.91	124.9	16.93	123
0703		5.93	0.747	10.26	109.7	16.83	129	
0706		5.94	0.751	0.0	9.89	16.80	132	
0709		5.94	0.755	0.1	9.41	16.74	136	
0712		5.92	0.756	0.0	9.39	16.72	140	
0715		5.92	0.757	0.0	9.25	16.70	139	
0720		5.90	0.758	0.0	9.22	16.69	141	
0725		5.90	0.758	0.0	9.17	16.70	142	
0730	20.39	5.90	0.760	0.0	9.14	16.66	141	

Sample time: 0730  
 DTP Sample time: 0735

**Well Sampling Purge Log**

Client: Marcus Garvey Project Number: 2158.0002Y003

Site Location: 650 Rockaway Avenue, Brooklyn, NY

Well No: MW-9 Weather: 38°F, CLOUDY

Date: 12/4/2018 Purge Water Disposal: 55 gal drums

Sampled By: ALFREDO F. Well Diameter / Type: 2" PVC

Depth to Product (ft): - Water Column (ft): 8.17

Depth to Water(ft): 21.02 Volume of Water in Well (gal): 1.33

Depth to Bottom (ft): 29.19 Volume of Water to Remove (gal): -

well diameter:	1 in	<u>2 in</u>	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 0709 Purge Rate: 150 mL/MIN

End Purging: 0736 Volume of Water Removed (gal): 1.125

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: CLEAR

Samples Collected: - VOCs (3 vials / HCl)

Duplicate Sample: No Laboratory: Alpha Analytical

**Field Measurements:**

Time	DTP ft	DTW ft	pH SU	Conductivity mS/cm S/m	Turbidity NTU	Dissolved O <sub>2</sub> mg/L	Temperature C°	ORP mV
0712	-	21.02	5.83	0.916	16.74	16.40	16.25	176
0715	-	21.02	5.89	0.914	16.55	15.55	16.27	204
0718	-	21.02	5.94	0.912	16.01	15.22	16.29	205
0721	-	21.02	5.98	0.912	15.82	14.86	16.30	206
0724	-	21.02	6.01	0.911	14.79	14.29	16.31	206
0727	-	21.02	6.03	0.911	14.21	14.01	16.33	207
0730	-	21.02	6.03	0.911	13.40	13.95	16.33	207
0733	-	21.02	6.03	0.911	13.27	13.89	16.34	207
0736	-	21.02	6.03	0.911	13.03	13.72	16.35	208

SAMPLE TIME: 0740

**Quarterly Groundwater Sampling Event Summary**  
***650 Rockaway Avenue, Brooklyn, New York***

---

**PLATE 1**

Exceedances of AWQSGV's in Groundwater

MW-5S	8/19/14	8/19/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	3/15/18	12/4/18
<b>VOCs</b>		DUP							
Chloroform	ND	ND	9.8	NE	ND	ND	ND	ND	ND

MW-1	8/20/14	7/14/16	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	3/15/18	12/4/18
<b>VOCs</b>			DUP							DUP	
Cis-1,2-Dichloroethylene	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	3200 D	220	240	110	62	78	31	16	18	14	21
Trichloroethylene (TCE)	40 D	NE	NE	ND	NE	NE	NE	NE	NE	NE	NE

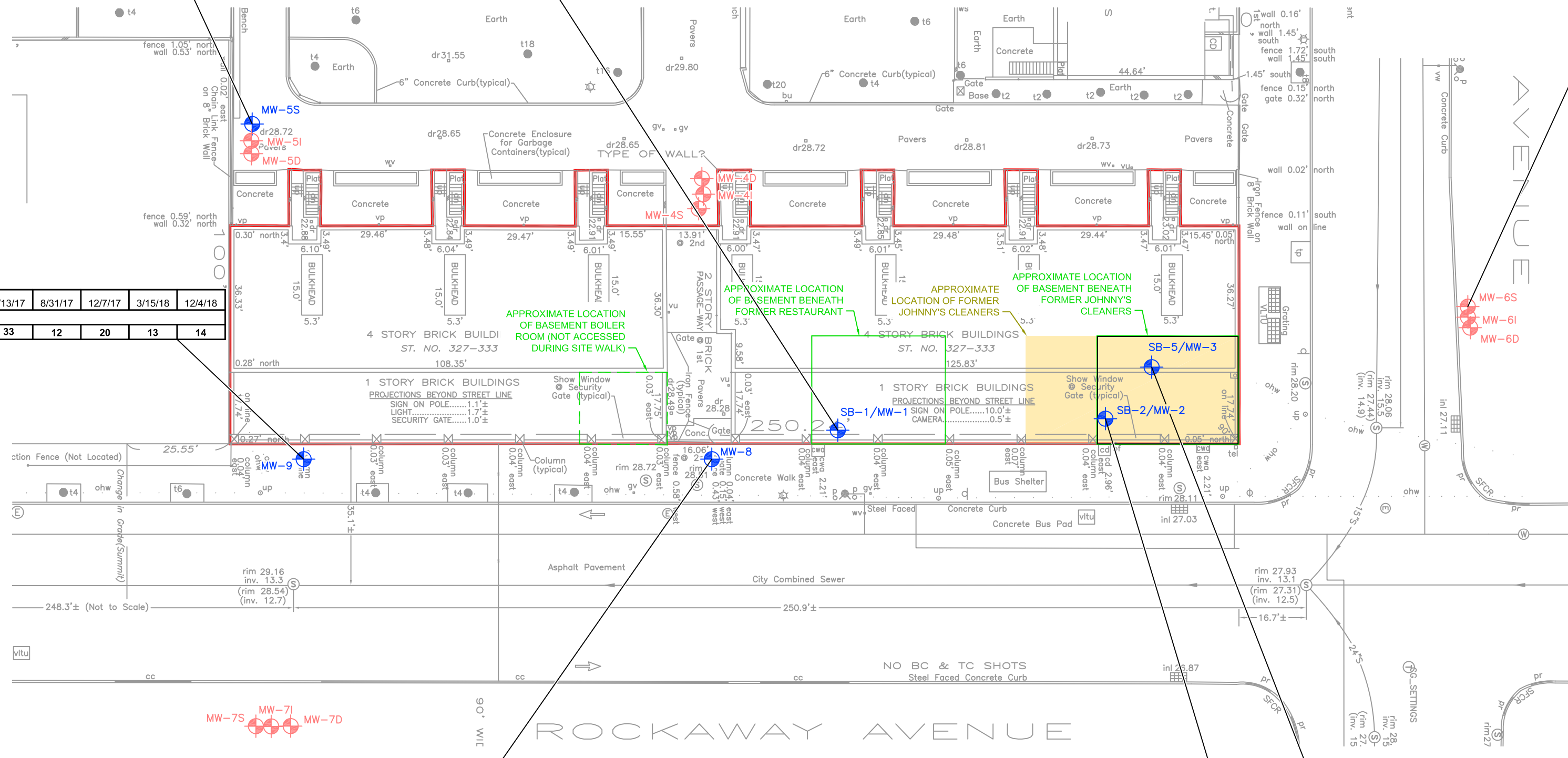
MW-6S	8/18/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
<b>VOCs</b>						
Tetrachloroethylene (PCE)	7.2	NE	NE	ND	ND	NE

MW-9	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>								
Tetrachloroethylene (PCE)	20	24	35	33	12	20	13	14

MW-2	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>									
Acetone	ND	ND	200	NE	NE	NE	NE	NE	ND
Cis-1,2-Dichloroethylene	190 JD	ND	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	190 JD	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	7700 D	49	NE	9.1	11	NE	NE	5.3	8.1
Trichloroethylene (TCE)	110 D	NE	ND	ND	ND	ND	ND	ND	ND

MW-3	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	8/31/17	3/15/18	12/4/18
<b>VOCs</b>							DUP		
Acetone	ND	ND	58	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	2700 D	32	ND	NE	NE	NE	NE	NE	NE
Trichloroethylene (TCE)	28 D	ND	ND	ND	ND	ND	ND	ND	ND

MW-8	7/14/16	8/18/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>			DUP						
Chloroform	12	19	19	NE	ND	ND	NE	NE	ND
Tetrachloroethylene (PCE)	140	140	140	36	22	20	20	17	17

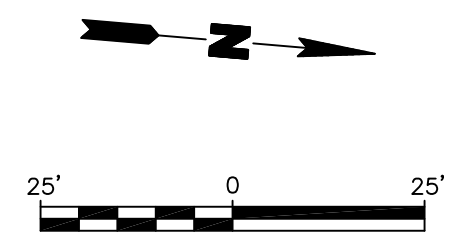


- LEGEND**
- MW-4 (Blue circle with cross) LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
  - MW-1 (Red circle with cross) LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
  - Red line BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
  - Yellow shaded area APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
  - Green dashed line APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

- DATA BOX KEY**
- SAMPLE LOCATION
- SAMPLE DATE
- ANALYTE
- CONCENTRATION
- µg/L - MICROGRAMS PER LITER
- \* - NYSDEC AWQSGVS
- NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- AWQSGVS - AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
- D - DILUTION
- J - ESTIMATED VALUE
- DUP - DUPLICATE SAMPLE
- VOCs - VOLATILE ORGANIC COMPOUNDS
- ND - NO DETECTION
- NE - NO EXCEEDANCES

Parameter	Standards (µg/L)
<b>VOCs</b>	
Acetone	50
Chloroform	7
Cis-1,2-Dichloroethylene	5
Dichloroethylenes	5
Tetrachloroethylene (PCE)	5
Trichloroethylene (TCE)	5

- NOTES**
- SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
  - WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-8 AND MW-9.
  - ON NOVEMBER 21, 2017, NYSDEC APPROVED THE REMOVAL OF MW-6S FROM THE LONG-TERM SITE MONITORING NETWORK.



Title: **EXCEEDANCES OF AWQSGVs IN GROUNDWATER**

MARCUS GARVEY APARTMENTS  
650 ROCKAWAY AVE., BROOKLYN, NEW YORK

Prepared for: **C & C APARTMENT MANAGERS LLC**

<b>ROUX</b>	Compiled by: L.C.	Date: 32DEC18	PLATE <b>1</b>
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: L.C.	Project: 2158.0002Y004	
	File: 2158.0002Y161.01.DWG		

V:\CAD\PROJECTS\2158\0002Y161\2158.0002Y161.01.DWG



# Data Validation Services

120 Cobble Creek Road P.O. Box 208  
North Creek, NY 12853

Phone 518-251-4429  
harry@frontiernet.net

January 28, 2018

Levi Curnette  
Roux Associates, Inc.  
209 Shafter St  
Islandia, NY 11749

RE: Marcus Garvey, Brooklyn, NY Groundwater Events  
Data Usability Summary Report (DUSR)  
Alpha SDG Nos. L1621796, L1625912, L1706226, L1719664, L1730772, and L1745053

Dear Mr. Curnette:

Review has been completed for the analytical data package noted above, generated by Alpha Analytical, that pertain to groundwater samples collected in six events between 07/14/16 and 12/07/17 at the Marcus Garvey, Brooklyn, NY site. Thirty nine samples and three field duplicates were processed for volatile analytes by USEPA method 8260C.

The data packages submitted by the laboratory contain full deliverables for validation, and this DUSR is generated from review of the summary form and raw data documentation, with guidance from the USEPA validation guidance documents. The following items were reviewed:

- \* Laboratory Narrative Discussion
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Matrix Spike Recoveries/Duplicate Correlations
- \* Blind Field Duplicate Correlations
- \* Method Blanks
- \* Laboratory Control Samples (LCSs)
- \* Instrumental Tunes
- \* Calibration Standards
- \* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c). The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data packages.

**In summary**, analyses were conducted in compliance with the required analytical protocols. Most sample results are usable either as reported or with minor qualification/edit. However, the results for 1,4-dioxane are rejected in all samples due to methodology limitations.

Data completeness, accuracy, precision, representativeness, sensitivity, and the analytical method comparability are acceptable.

The sample identification summary is attached to this text. Also included with the report are validation qualifier definitions and laboratory EQUIS results files annotated to reflect the qualifications recommended within this report.

Because the same client IDs were utilized for samples collected in multiple sampling events, they are distinguished from each other in this narrative parenthetically by the collection dates.

The following text discusses quality issues of concern.

### **Chain-of-Custody/Sample Receipt**

The custody forms requested the Target Analyte List (TCL); however, the laboratory reported an extended list of volatile analytes. Many of the validation qualifiers applied to the sample results are for analytes that were not requested.

Final relinquish entries were omitted or incomplete on some of the custody forms.

### **Blind Duplicate Evaluations**

The blind field duplicates were evaluated at locations MW-1 (July 2016), MW-8 (August 2016), and MW-3 (August 2017), and show acceptable correlations.

### **Volatile Analyses by EPA 8260C**

The matrix spike/duplicate evaluations of MW-6S (August 2018) and MW-3 (August 2017) show acceptable recoveries and correlations, with the following exceptions, the recoveries for which have been qualified as estimated in value in the indicated parent samples:

- Naphthalene (61% and 68%) in MW-6S
- Chloromethane and bromomethane (27% to 38%) in MW-3
- 2,2-Dichloropropane (53% and 60%) in MW-2, MW-8, MW-9, DUP-083117, and the associated blanks (all August 2017)

Due to very low response factors inherent in the methodology, the results for 1,4-dioxane in the samples are rejected and not usable. Other calibration standards showed responses within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated samples; this number of outlying responses should have been mentioned in the laboratory case narratives:

- Bromomethane, t-butylbenzene, n-butylbenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, naphthalene, and trans-1,4-dichloro-2-butene in the field samples and duplicate collected in August 2016
- Chloromethane and vinyl chloride (67%D and 32%D) in MW-1, MW-3, MW-5S, and MW-6S (all August 2017)
- Methyl-t-butyl ether, 2,2-dichloropropane, carbon tetrachloride, 1,1,1-trichloroethane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, bromoform, 1,2-dibromo-3-chloropropane (21%D to 47%D) in MW-2, MW-8, MW-9, DUP-083117, and the associated blanks (all August 2017)

- Bromomethane, styrene, bromomform, trans-1,4-dichloro-2-butene, hexachlorobutene, 1,2,3-trichlorobenene, 1,2-dibromo-3-chloropropane (21%D to 70%D) in samples collected in December 2017

The detection of bromomethane in MW-9-081816 is considered external contamination and edited to non-detection due to presence in the associated method blank. That detection should have been flagged as "B" by the laboratory.

Due to low recoveries in the associated LCSs, results for the following analytes are qualified as estimated in value:

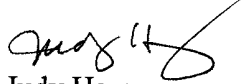
- Naphthalene (65% and 65%) in the samples and blanks reported in SDG L1621796
- Bromomethane and styrene (31% to 49%) in samples and blanks reported in SDG L1745053
- Chloromethane (30% and 33%) in MW-1, MW-3, MW-5S, and MW-6S (all August 2017)

Surrogate and internal standard responses are compliant.

The trip blank associated with the samples collected in June 2017 was filled approximately a month before the samples were collected. Although no qualification is made, it should be noted that potential contribution from glassware and preservative has not been totally evaluated.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,



Judy Harry

Att: Validation Qualified Definitions  
Sample Identifications  
Qualified Client EDDs

## VALIDATION DATA QUALIFIER DEFINITIONS

- U** The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J** The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- J-** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
- J+** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
- UJ** The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
- NJ** The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
- EMPC** The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

**Client and Laboratory Sample IDs**

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y003

**Lab Number:** L1621796  
**Report Date:** 07/22/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1621796-01	MW-3	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 07:50	07/14/16
L1621796-02	MW-2	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 07:55	07/14/16
L1621796-03	MW-9	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 08:55	07/14/16
L1621796-04	MW-8	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 09:15	07/14/16
L1621796-05	MW-6S	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 10:40	07/14/16
L1621796-06	MW-1	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 10:45	07/14/16
L1621796-07	DUP-071416	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 10:50	07/14/16
L1621796-08	FIELD BLANK-071416	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 10:00	07/14/16
L1621796-09	MW-5S	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/14/16 11:40	07/14/16
L1621796-10	TRIP BLANK	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	07/13/16 00:00	07/14/16



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y003

**Lab Number:** L1625912  
**Report Date:** 08/24/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1625912-01	MW-9	WATER	BROOKLYN, NY	08/18/16 08:00	08/18/16
L1625912-02	MW-8	WATER	BROOKLYN, NY	08/18/16 08:15	08/18/16
L1625912-03	DUP-081816	WATER	BROOKLYN, NY	08/18/16 08:20	08/18/16
L1625912-04	MW-6S	WATER	BROOKLYN, NY	08/18/16 09:05	08/18/16
L1625912-05	MW-2	WATER	BROOKLYN, NY	08/18/16 10:00	08/18/16
L1625912-06	MW-3	WATER	BROOKLYN, NY	08/18/16 09:50	08/18/16
L1625912-07	MW-1	WATER	BROOKLYN, NY	08/18/16 10:40	08/18/16
L1625912-08	FIELD BLANK	WATER	BROOKLYN, NY	08/18/16 11:00	08/18/16
L1625912-09	MW-5S	WATER	BROOKLYN, NY	08/18/16 11:45	08/18/16
L1625912-10	TRIP BLANK	WATER	BROOKLYN, NY	08/18/16 00:00	08/18/16

**Project Name:** MARCUS GARVEY  
**Project Number:** 2158:0002Y004

**Lab Number:** L1706226  
**Report Date:** 01/08/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1706226-01	MW-2	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:15	02/28/17
L1706226-02	MW-3	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:10	02/28/17
L1706226-03	MW-6S	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 08:35	02/28/17
L1706226-04	MW-8	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 07:55	02/28/17
L1706226-05	MW-9	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 07:45	02/28/17
L1706226-06	MW-5S	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 08:35	02/28/17
L1706226-07	MW-1	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:55	02/28/17
L1706226-08	TRIP BLANK	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/24/17 00:00	02/28/17
L1706226-09	FB-022817	WATER	650 ROCKAWAY AV. BROOKLYN, NY	02/28/17 10:00	02/28/17



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1719664  
**Report Date:** 01/08/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1719664-01	MW-9	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 07:25	06/13/17
L1719664-02	MW-8	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 07:30	06/13/17
L1719664-03	MW-5S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 08:10	06/13/17
L1719664-04	MW-6S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 08:15	06/13/17
L1719664-05	FIELD BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:00	06/13/17
L1719664-06	MW-3	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:25	06/13/17
L1719664-07	MW-2	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 09:30	06/13/17
L1719664-08	MW-1	WATER	650 ROCKAWAY AV., BROOKLYN, NY	06/13/17 10:15	06/13/17
L1719664-09	TRIP BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	05/19/17 00:00	06/13/17



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1730772  
**Report Date:** 01/08/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1730772-01	MW-8	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 07:30	08/31/17
L1730772-02	MW-9	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 07:35	08/31/17
L1730772-03	MW-2	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:15	08/31/17
L1730772-04	MW-3	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:20	08/31/17
L1730772-05	DUP-083117	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 08:25	08/31/17
L1730772-06	FIELD BLANK-083117	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:00	08/31/17
L1730772-07	MW-1	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:10	08/31/17
L1730772-08	MW-6S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:30	08/31/17
L1730772-09	MW-5S	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/31/17 09:55	08/31/17
L1730772-10	TRIP BLANK	WATER	650 ROCKAWAY AV., BROOKLYN, NY	08/30/17 00:00	08/31/17



**Project Name:** MARCUS GARVEY  
**Project Number:** 2158:0002Y004

**Lab Number:** L1745053  
**Report Date:** 01/08/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1745053-01	MW-8	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 07:30	12/07/17
L1745053-02	MW-9	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 07:55	12/07/17
L1745053-03	MW-1	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 09:00	12/07/17
L1745053-04	MW-2	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/07/17 10:00	12/07/17
L1745053-05	TRIP BLANK	WATER	650 ROCKAWAY AVE., BROOKLYN, NY	12/05/17 00:00	12/07/17

# Data Validation Services

120 Cobble Creek Road P.O. Box 208

North Creek, NY 12853

Phone 518-251-4429

harry@frontiernet.net

April 1, 2018

Levi Curnette  
Roux Environmental Engineering and Geology, D. P. C.  
209 Shafter St  
Islandia, NY 11749

RE: Marcus Garvey, Brooklyn, NY Groundwater Events  
Data Usability Summary Report (DUSR)  
Alpha SDG Nos. L1808835

Dear Mr. Curnette:

Review has been completed for the analytical data package noted above, generated by Alpha Analytical, that pertain to groundwater samples collected 03/15/18 at the Marcus Garvey, Brooklyn, NY site. Six samples and a field duplicate were processed for volatile analytes by USEPA method 8260C.

The data packages submitted by the laboratory contain full deliverables for validation, and this DUSR is generated from review of the summary form and raw data documentation, with guidance from the USEPA validation guidance documents. The following items were reviewed:

- \* Laboratory Narrative Discussion
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Matrix Spike Recoveries/Duplicate Correlations
- \* Blind Field Duplicate Correlations
- \* Method Blanks
- \* Laboratory Control Samples (LCSs)
- \* Instrumental Tunes
- \* Calibration Standards
- \* Sample Result Verification

The data review includes evaluation of the specific items noted in The NYS DER-10 Appendix B section 2.0 (c). The items listed above that show deficiencies are discussed within the text of this narrative. The laboratory QC forms illustrating the excursions can be found within the laboratory data packages.

**In summary**, analyses were conducted in compliance with the required analytical protocols. Most sample results are usable either as reported or with minor qualification/edit. However, the results for 1,4-dioxane are rejected in all samples due to methodology limitations.

Data completeness, accuracy, precision, representativeness, sensitivity, and the analytical method comparability are acceptable.

The sample identification summary is attached to this text. Also included with the report are validation qualifier definitions and laboratory EQUIS results file annotated to reflect the qualifications recommended within this report.

The following text discusses quality issues of concern.

**Chain-of-Custody/Sample Receipt**

The custody forms requested the Target Analyte List (TCL); however, the laboratory reported an extended list of volatile analytes.

**Blind Duplicate Evaluations**

The blind field duplicate was evaluated at location MW-1, and shows acceptable correlations.

**Volatile Analyses by EPA 8260C**

The matrix spike/duplicate evaluations of MW-1 show acceptable recoveries and correlations.

Due to very low response factors inherent in the methodology, the results for 1,4-dioxane in the samples are rejected and not usable. Other calibration standards showed responses within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated samples; this number of outlying responses should have been mentioned in the laboratory case narratives:

- vinyl chloride (28%D) in MW-1 and MW-5S
- vinyl chloride, bromomethane, ethyl ether, and bromoform (21%D to 53%D) in all samples except MW-1 and MW-5S

Surrogate and internal standard responses are compliant. LCS recoveries are acceptable. Blanks show no contamination.

The trip blank vial was filled three weeks before the samples were collected, and therefore the results for that blank have been qualified as estimated in value. It is noted that potential contribution from glassware and preservative has not been totally evaluated.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

  
Judy Harry

Att: Validation Qualified Definitions  
Sample Identifications  
Qualified Client EDDs

## VALIDATION DATA QUALIFIER DEFINITIONS

- U** The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J** The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- J-** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
- J+** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
- UJ** The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
- NJ** The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
- EMPC** The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

## **Client and Laboratory Sample IDs**

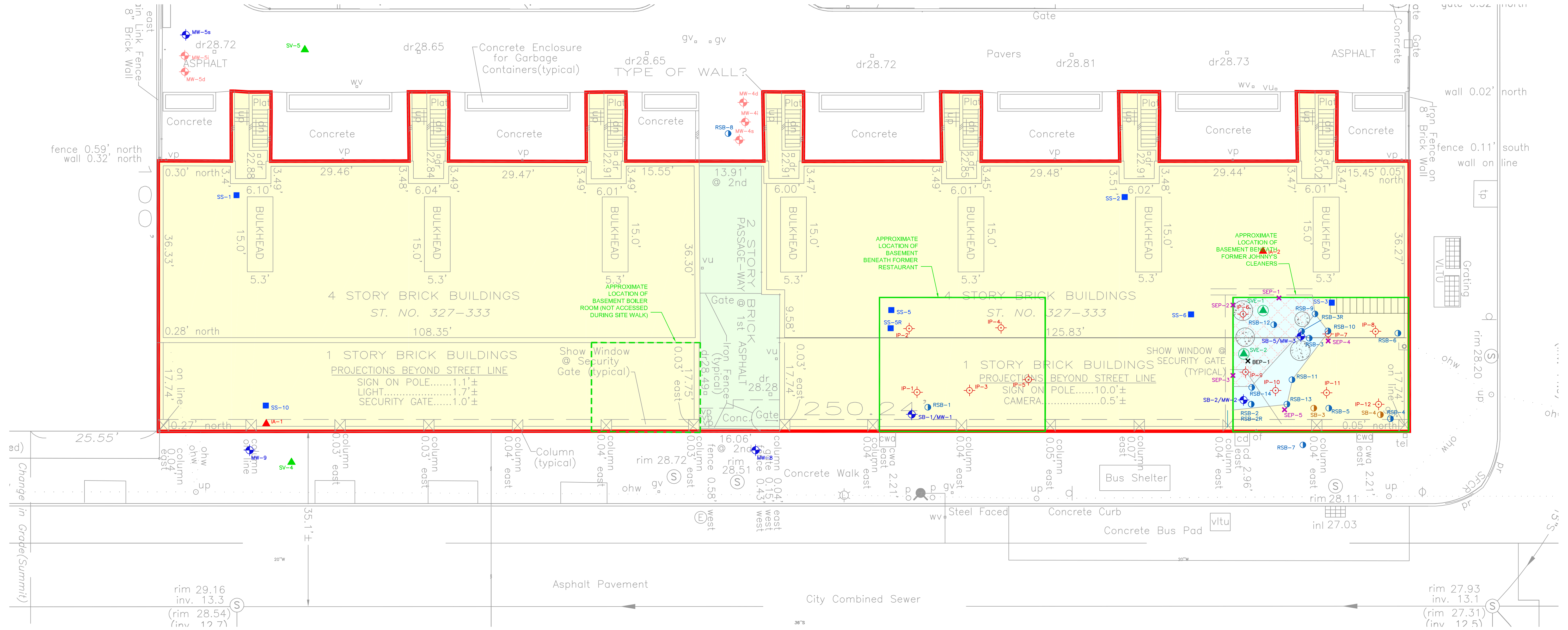
**Project Name:** MARCUS GARVEY  
**Project Number:** 2158.0002Y004

**Lab Number:** L1808835  
**Report Date:** 03/20/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1808835-01	MW-8	WATER	BROOKLYN, NY	03/15/18 07:30	03/15/18
L1808835-02	MW-9	WATER	BROOKLYN, NY	03/15/18 07:45	03/15/18
L1808835-03	MW-1	WATER	BROOKLYN, NY	03/15/18 08:30	03/15/18
L1808835-04	DUP-031518	WATER	BROOKLYN, NY	03/15/18 08:35	03/15/18
L1808835-05	MW-3	WATER	BROOKLYN, NY	03/15/18 09:15	03/15/18
L1808835-06	MW-2	WATER	BROOKLYN, NY	03/15/18 09:30	03/15/18
L1808835-07	MW-5S	WATER	BROOKLYN, NY	03/15/18 10:20	03/15/18
L1808835-08	FIELD BLANK	WATER	BROOKLYN, NY	03/15/18 10:00	03/15/18
L1808835-09	TRIP BLANK	WATER	BROOKLYN, NY	02/22/18 00:00	03/15/18

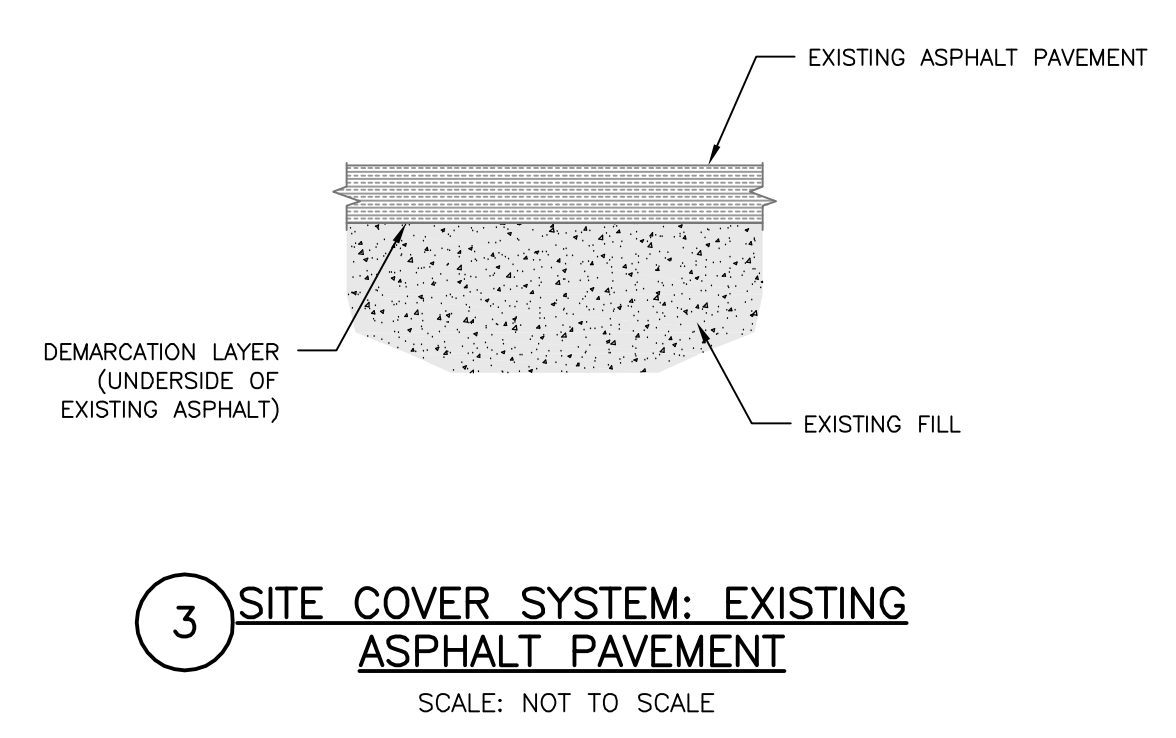
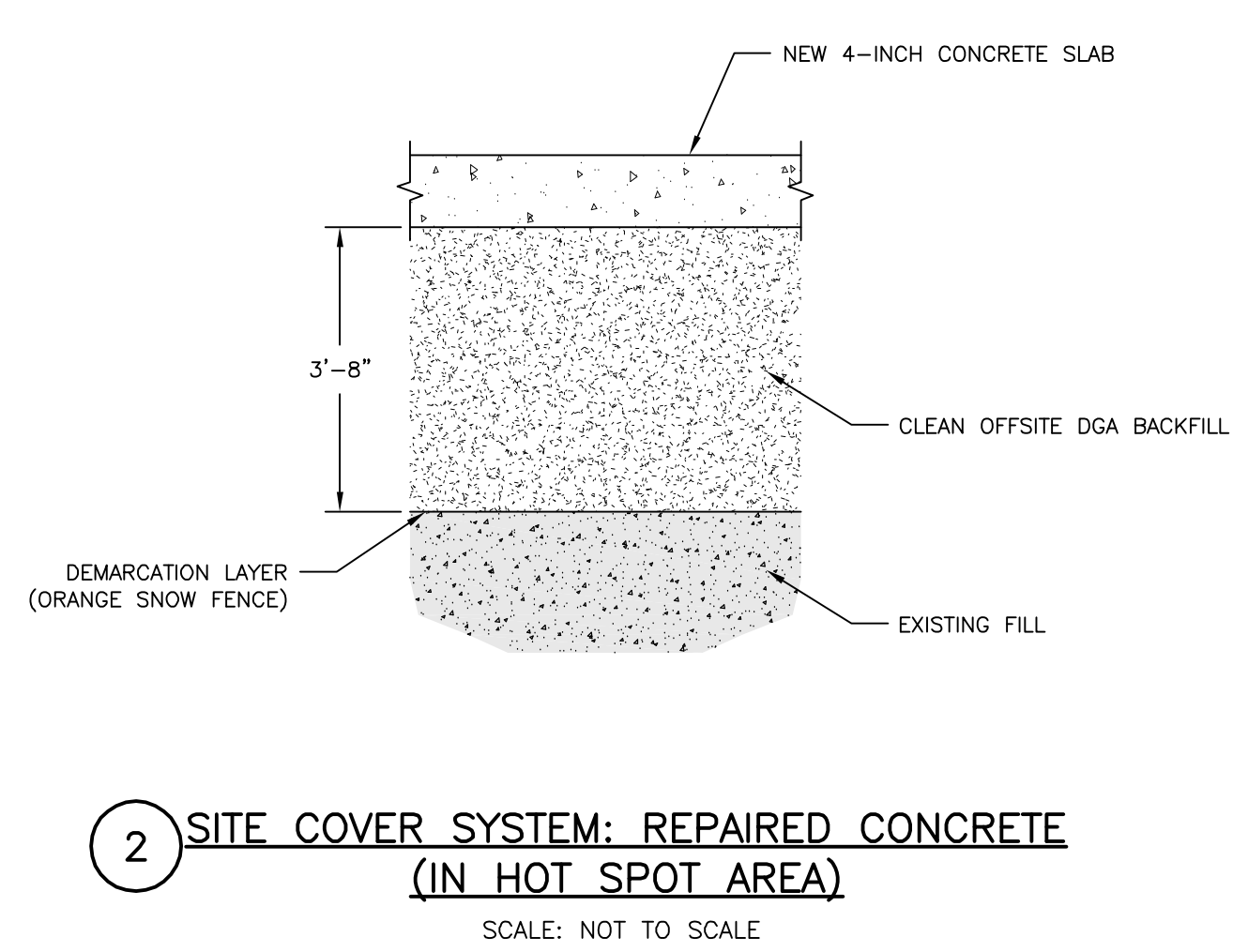
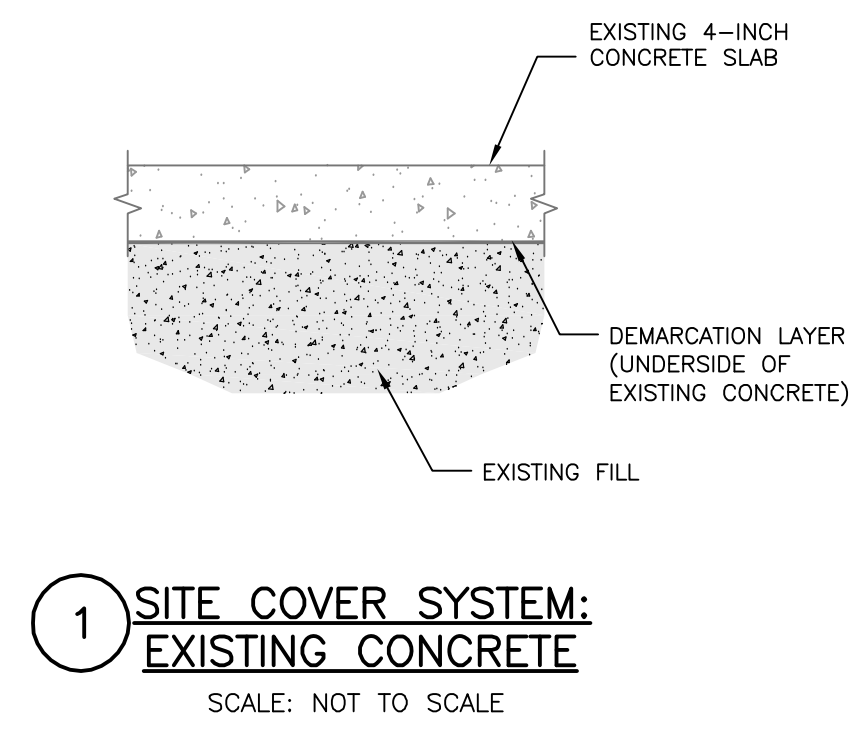


Site Cover System

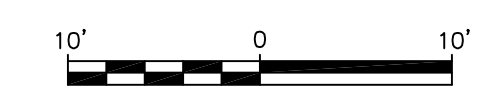


- LEGEND**
- MW-4 LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
  - MW-1 LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
  - SS-1 LOCATION AND DESIGNATION OF TEMPORARY SUB-SLAB VAPOR SAMPLING POINT
  - SV-1 LOCATION AND DESIGNATION OF TEMPORARY SOIL VAPOR SAMPLING POINT
  - IA-1 LOCATION AND DESIGNATION OF INDOOR AIR SAMPLE
  - SVE-1 LOCATION AND DESIGNATION OF SOIL VAPOR EXTRACTION WELL
  - SEP-3 LOCATION AND DESIGNATION OF SIDEWALL DOCUMENTATION SAMPLE
  - BEP-3 LOCATION AND DESIGNATION OF BOTTOM DOCUMENTATION SAMPLE
  - RSB-1 LOCATION AND DESIGNATION OF SOIL BORING
  - SB-4 LOCATION AND DESIGNATION OF SOIL BORING INSTALLED BY ECOSYSTEMS STRATEGIES, INC.
  - IP-1 LOCATION AND DESIGNATION OF IN SITU CHEMICAL OXIDATION POINT
  - LIMITS OF HOT SPOT EXCAVATION, DISPOSAL AS F-LISTED HAZARDOUS WASTE AND BACKFILL WITH CLEAN DGA TO 4 FEET BBS AND CONCRETE SLAB REMOVAL AND REPLACEMENT
  - LIMITS OF HOT SPOT EXCAVATION, DISPOSAL AS NON HAZARDOUS WASTE AND BACKFILL WITH CLEAN DGA TO 4 FEET BBS AND CONCRETE SLAB REMOVAL AND REPLACEMENT
  - SITE COVER SYSTEM COMPRISED OF EXISTING CONCRETE SLAB
  - SITE COVER SYSTEM COMPRISED OF EXISTING ASPHALT PAVEMENT
  - BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
  - APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)
  - FORMER COLUMN FOOTING REMOVED DURING REMEDIATION

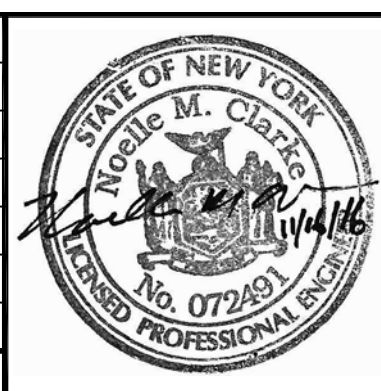
- NOTES**
1. SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D).
  2. BASEMENT ELEVATION IS APPROXIMATELY 10 FEET BELOW LAND SURFACE.
  3. IN SITU GROUNDWATER TREATMENT CONSISTED OF POTASSIUM PERMANGANATE INJECTIONS INTO 12 CHEMICAL INJECTION POINTS (10 TEMPORARY WELLS AND 2 DIRECT INJECTION POINTS IP-2 AND IP-4). ADDITIONAL INJECTION ROUNDS MAY BE REQUIRED DEPENDING UPON POST-INJECTION GROUNDWATER SAMPLING RESULTS.
  4. REFER TO DETAILS FOR SITE COVER SYSTEM TYPES.
  5. THE SUB-SLAB DEPRESSURIZATION SYSTEM AND SVE WELLS INSTALLED AT THE SITE IS SHOWN ON PLATE 3.
  6. EXCAVATION WAS BACKFILLED WITH DGA, WHICH MET THE CRITERIA FOR IMPORT WITHOUT SAMPLING. BACKFILL WAS APPROVED BY NYSDEC PRIOR TO IMPORT.
  7. REFER TO PLATE 6 FOR CROSS SECTIONS SHOWING THE ELEVATION OF REMAINING CONTAMINATION.
- FT BLS - FEET BELOW LAND SURFACE  
 FT BBS - FEET BELOW BASEMENT SLAB (SEE NOTE 2)  
 SEP - SIDEWALL ENDPOINT SAMPLE  
 BEP - BOTTOM ENDPOINT SAMPLE  
 NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 DGA - DENSE GRADED AGGREGATE



**AS-BUILT**



NO.	DATE	REVISION DESCRIPTION	INT.



UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF STATE LAW.  
 THESE DOCUMENTS (OR COPIES OF ANY THEREOF) PREPARED BY OR BEARING THE SEAL OF THE ENGINEER, SHALL NOT BE REUSED FOR ANY EXTENSIONS OF THE PROJECT OR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

PROJ. ENGINEER: N.C.	DRAWN BY: J.A.D.
DESIGNED BY: N.C.	CHECKED BY: W.K.
DRAWING SCALE: 1"=10'	PLOT SCALE: 1:1
DRAWING DATE: 28OCT16	PRINT TYPE: COLOR
OFFICE: NY	PAPER SIZE: ARCH D
PROJECT NO.: 2158.0002Y002	
DRAWING FILE: 2158.0002Y142.01.DWG	

**Remedial**  
**REMEDIAL ENGINEERING, P.C.**  
 209 Shafter Street  
 Islondia, New York 11749 (631) 232-2600

PROJECT NAME:  
**MARCUS GARVEY APARTMENTS**  
 650 ROCKAWAY AVE., BROOKLYN, NY  
 PROJECT FOR:  
**MARCUS GARVEY PRESERVATION LLC**

TITLE:  
**AS-BUILT OF REMEDIAL COMPONENTS COMPLETED AND ENGINEERING AND INSTITUTIONAL CONTROLS**

PLATE  
**3**

IC and EC Certification Form



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
 Site Management Periodic Review Report Notice  
 Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No.	C224198		
<b>Site Name Marcus Garvey Apartments</b>			
Site Address: 650 Rockaway Avenue		Zip Code: 11212-5631	
City/Town: Brooklyn			
County: Kings			
Site Acreage: 0.328			
Reporting Period: April 12, 2018 to April 12, 2019			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<b>Box 2</b>	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.</b>			
<b>A Corrective Measures Work Plan must be submitted along with this form to address these issues.</b>			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	



Box 2A

YES NO

- 8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?  YES  NO

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

- 9. Are the assumptions in the Qualitative Exposure Assessment still valid?  YES  NO  
(The Qualitative Exposure Assessment must be certified every five years)

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C224198

Box 3

Description of Institutional Controls

Parcel  
3575-11

Owner  
Marcus Garvey Preservation LLC

Institutional Control

Ground Water Use Restriction  
Soil Management Plan  
Landuse Restriction  
Monitoring Plan  
Site Management Plan  
O&M Plan  
IC/EC Plan

The site is subject to an environmental easement, which:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential, commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

Box 4

Description of Engineering Controls

Parcel  
3575-11

Engineering Control

Vapor Mitigation  
Cover System  
Air Sparging/Soil Vapor Extraction

The engineering controls in place at the site are:

- a site cover that allows for restricted residential use of the site. The cover consists of either structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs); and
- an active sub-slab depressurization system operating in any current or future occupied on-site buildings, to mitigate the migration of vapors into occupied buildings from contaminated soil and/or groundwater via soil vapor intrusion.
- Soil Vapor Extraction - Two Soil Vapor Extraction (SVE) wells were installed to address contamination beneath the footings of the building that could not be removed during the excavation.

**Periodic Review Report (PRR) Certification Statements**

1. I certify by checking "YES" below that:

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
- b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES      NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

- (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
- (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
- (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
- (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
- (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES      NO

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. C224198

Box 6

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I David Oisby at 1865 Palmer Ave, 2<sup>nd</sup> FL, Larchmont NY  
print name print business address 10538

am certifying as owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.



Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

6/3/2019

Date

IC/EC CERTIFICATIONS

Box 7

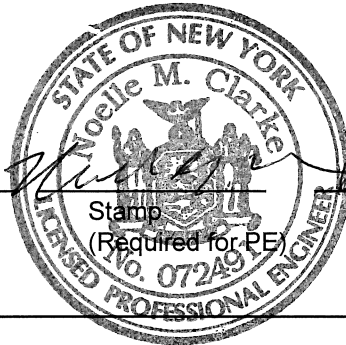
Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I NOELLE CLARKE at 209 SHAFTER ST., ISLANDIA, NY  
print name print business address

am certifying as a Professional Engineer for the OWNER  
(Owner or Remedial Party)

Noelle M. Clarke  
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification



Stamp  
(Required for PE)

4/4/19  
Date



Annual Site Inspection Checklist

Site Inspection Checklist, Marcus Garvey Apartments Site, 650 Rockaway Avenue, Brooklyn, NY

Date: TUES 3/12/19

Completed By: LEVI CORNUTTE

Description	Status			Actions Taken / Comments
	Ok	Action Req.	N/A	
<b>Site Cover System</b>				
1 Inspect site cover system for cracks and leaks.				
<b>Sub-Slab Depressurization System Blower A (South Side of Building)</b>				
<b>A. Aboveground Piping on Roof</b>				
1 Inspect aboveground piping for cracks, leaks and support issues.	X			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	X			
<b>B. Electrical</b>				
1 Check that the electrical control panel is closed/secured.	X			
2 Confirm that the alarm light is functioning properly.	X			ALARM LIGHTS = YES. "PUMP RUNNING" BULB NEED REPLACING
<b>C. Blower Enclosure</b>				
1 Inspect condition of exhaust fan, thermostat and louver.	X			
<b>D. Moisture Knock-out Tank</b>				
1 Check condition of vacuum filter.	X			
2 Check dilution valve for noises or leaks.	X			
3 Check for presence of water in knockout tank.	X			NO WATER
<b>Sub-Slab Depressurization System Blower B (North Side of Building)</b>				
<b>A. Aboveground Piping on Roof</b>				
1 Inspect aboveground piping for cracks, leaks and support issues.	X			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	X			
<b>B. Electrical</b>				
1 Check that the electrical control panel is closed/secured.	X			
2 Confirm that the alarm light is functioning properly.	X			SAME AS BLOWER A
<b>C. Blower Enclosure</b>				
1 Inspect condition of exhaust fan, thermostat and louver.	X			
<b>D. Moisture Knock-out Tank</b>				
1 Check condition of vacuum filter.	X			
2 Check dilution valve for noises or leaks.	X			
3 Check for presence of water in knockout tank.	X			~10 GAL DRAINED
<b>Institutional Controls</b>				
1 Confirm that the site usage is in compliance with the institutional controls.	X			
<b>Site Records</b>				
1 Inspect site records and confirm that they are up to date (e.g., Site Inspection Checklists and Sub-Slab Depressurization System and SVE Wells Operations Logs, sampling logs, etc.)	X			

Annual Inspection Photograph Log

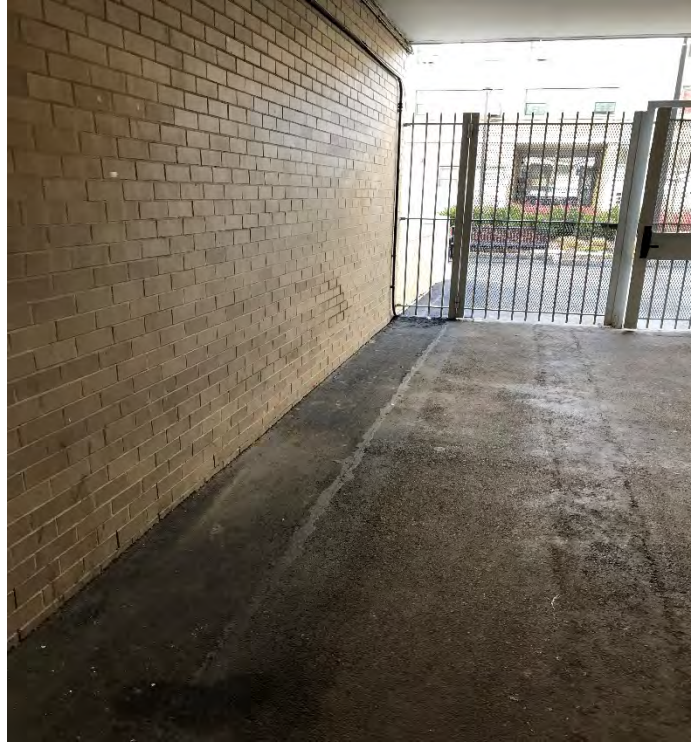


Photo 1: Photo showing cover system in the breezeway, looking southeast.



Photo 2: Photo of the concrete slab in the Site's boiler room (west and south wall).



Photo 3: Photo of the concrete slab in the Site's boiler room (southeast corner).



Photo 4: Photo during site cover system inspection in the water main room, located next to the boiler room.





Photo 5: Representative photo of the southern basement (looking north); injection points and MW-1 are in view.



Photo 6: Photo of the northeast corner in the northern basement.



Photo 7: Southwest corner of the north basement; SVE wells, SSDS piping, an injection point, and SVMP-B5 are in view.



Photo 8: looking south, a photo of Blower A SSDS piping run along the roof on the residential (west) side of the building.



Photo 9: View of Blower A during operation.



Photo 10: View of Blower A control panel during operation; “pump running” bulb appears to be burnt out





Photo 11: View of Blower B, looking north.



Photo 12: View of Blower B knockout tank and vacuum gauge.

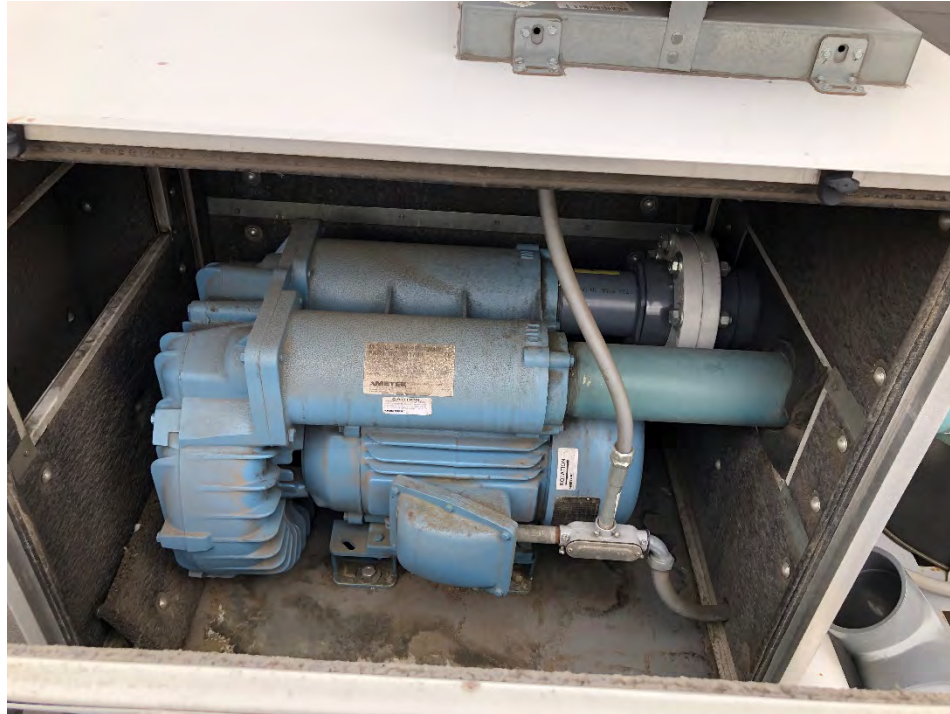


Photo 13: Photo showing monitoring point SVMP-A4 and suction point MG-A3, located in the residential basement at 337 Chester St.



Photo 14: Photo showing monitoring point SVMP-A2 and suction point MG-A12, located in the boiler room.



Photo 15: Photo showing monitoring point SVMP-B2 located in the north basement below the commercial space prior to testing.



Photo 16: Photo showing monitoring point SVMP-B6 located in the northernmost basement below the residential side of the Site.

Completed Monthly SSDS O&M Logs



### BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>5-29-18</u> Inspection Personnel: <u>CLIPTON LAM</u>
---	---

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Approx. 1 GA.
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	- 20	
Knock-out Tank-A1	- 20	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	- 0.150	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	0.010	
SVMP-A3 (335 Chester)	0.049	
SVMP-A4 (337 Chester)	0.070	
SVMP-A5 (339 Chester)	0.000	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>5-29-18</u> Inspection Personnel: <u>CLIFTON LAM</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Approx. 1 GAL.</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>- 50</u>	
Knock-out Tank-B1	<u>- 42</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1	<u>- 0.151</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.068</u>	
SVMP-B2	<u>0.005</u>	
SVMP-B3	<u>0.002</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.064</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water

\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>06-26-2018</u> Inspection Personnel: <u>ALFREDO FERNANDEZ</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	<u>NO WATER IN K.O. TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		

List maintenance activities that were performed or other comments about the system: USED AN AIR COMPRESSOR TO PURGE SVMP-A5

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>20</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	<u>0.284</u>	<u>PM = 2.6 PPM</u>
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>3.105</u>	
SVMP-A3 (335 Chester)	<u>0.101</u>	
SVMP-A4 (337 Chester)	<u>0.158</u>	
SVMP-A5 (339 Chester)		<u>BEFORE BLOW OUT: 0.0 "WC / AFTER: 0.0 "WC</u>

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	—	—	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1	<u>15.43</u>	
MG-A2	<u>15.41</u>	
MG-A3	<u>14.98</u>	
MG-A4	<u>15.02</u>	
MG-A5		
MG-A6	<u>13.81</u>	
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12	<u>15.40</u>	
MG-A13	<u>15.58</u>	
MG-A14		

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM		
Site Name:	Marcus Garvey Apartments (BCP Site No C224198)	Inspection Date: 06-26-2018
Street Address:	650 Rockaway Avenue	Inspection Personnel: ALFREDO FERNANDEZ
Location:	Brownsville, NY	
System:	Active Mix Use Sub-Slab Depressurization System	
Blower:	Rotron EN909 15 Hp (Blower B)	
Blower Range:	120 IWG pressure, 100 IWG vac, 600 cfm	

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO WATER IN K.O. TANK
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: USED AN AIR COMPRESSOR TO PURGE SVMP-B2, SVMP-B3, SVMP-B4

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	50	
Knock-out Tank-B1	50	
Blower Effluent	Pressure (in. w.c.)	Comments
EPF-B1	0.167	PID = 0.9 PPM
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	0.011	
SVMP-B2		BEFORE BLOW OUT: 0.0"WC / AFTER: 0.194"WC
SVMP-B3		BEFORE BLOW OUT: 0.0"WC / AFTER: 0.055"WC
SVMP-B4 (331 Chester)		BEFORE BLOW OUT: 0.0"WC / AFTER: 0.002"WC
SVMP-B5	0.123	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1	32.32	
MG-B2	33.96	
MG-B3	34.09	
MG-B4	33.71	
MG-B5	35.08	
MG-B6	34.23	
MG-B7	34.31	
MG-B8	41.02	
MG-B9	41.05	
MG-B10	40.97	
MG-B11	40.67	
MG-B12	40.42	
MG-B13	26.99	
MG-B14	26.71	
MG-B15	25.68	
MG-B16	25.35	
MG-B17		DOOR SEALED

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points



**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>7-31-18</u> Inspection Personnel: <u>CLIFF LAM</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>50</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1	<u>0.376</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.000</u>	
SVMP-B2	<u>0.062</u>	
SVMP-B3	<u>0.000</u>	
SVMP-B4 (331 Chester)	<u>0.005</u>	
SVMP-B5	<u>0.051</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>7-31-18</u> Inspection Personnel: <u>CLIFF CAM</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	BLOWER "A" OFF, RESET BREAKER - NOW OK
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO WATER
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	20	
Knock-out Tank-A1	20	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	0.077	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	1.161	
SVMP-A3 (335 Chester)	0.062	
SVMP-A4 (337 Chester)	0.002	WRONG UNITS. Ch re-measured 8/3/18. A4 = 0.163 in w.c
SVMP-A5 (339 Chester)	0.000	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

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## BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>8-31-18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>CRACK DRAIN TANK VALVE</u>
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>20</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	<u>0.007</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>1.257</u>	
SVMP-A3 (335 Chester)	<u>0.057</u>	
SVMP-A4 (337 Chester)	<u>0.049</u>	
SVMP-A5 (339 Chester)	<u>0.009</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water

\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>8-31-18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER IN TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>56</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1	<u>0.184</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.020</u>	
SVMP-B2	<u>0.062</u>	
SVMP-B3	<u>0.010</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.048</u>	

**PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.**

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water

\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>9-27-18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>CRACK DRAIN TANK VALVE</u>
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER IN TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>20</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	<u>0.005</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>1.222</u>	
SVMP-A3 (335 Chester)	<u>0.060</u>	
SVMP-A4 (337 Chester)	<u>0.089</u>	
SVMP-A5 (339 Chester)	<u>0.008</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u>	Inspection Date: <u>9-27-18</u>
Street Address: <u>650 Rockaway Avenue</u>	Inspection Personnel: <u>CLIFF</u>
Location: <u>Brownsville, NY</u>	
System: <u>Active Mix Use Sub-Slab Depressurization System</u>	
Blower: <u>Rotron EN909 15 Hp (Blower B)</u>	
Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER IN TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>54</u>	
Knock-out Tank-B1	<u>48</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1	<u>0.170</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.021</u>	
SVMP-B2	<u>0.059</u>	
SVMP-B3	<u>0.008</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.040</u>	

**PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.**

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>10/31/18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER IN TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>20</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>2.836</u>	
SVMP-A3 (335 Chester)	<u>0.073</u>	
SVMP-A4 (337 Chester)	<u>0.160</u>	
SVMP-A5 (339 Chester)	<u>0.010</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>10/31/18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>CRACK DRAIN TANK VALVE</u>
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO WATER IN TANK</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>58</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.000</u>	
SVMP-B2	<u>0.000</u>	
SVMP-B3	<u>0.004</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.035</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points



**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>11-30-18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>APPROX 4 GALS.</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>22</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>1.543</u>	
SVMP-A3 (335 Chester)	<u>0.075</u>	
SVMP-A4 (337 Chester)	<u>0.108</u>	
SVMP-A5 (339 Chester)	<u>0.000</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>11-30-18</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	/		
Are any warning lights on? (Please list those that are on)	-	/	
If there is an alarm condition, was it fixed and the system restarted?	-	/	
Is the blower enclosure in good condition?	/		
Are the valves (at blower and aboveground piping) in good condition?	-	/	<u>CRACK DRAIN TANK VALVE</u>
Is the vacuum filter in good condition?	/		
Does the knock-out tank need to be drained? (Record amount drained)	/	/	<u>AVERAGE 10 GALS.</u>
Are aboveground piping free of cracks, leaks, and support issues?	/		
Are vacuum/pressure gauges at blower operating properly?	/		
Are interior piping free of cracks, leaks, and support issues?	/		
Are the valves on SVE wells 1 and 2 open?	/		

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>58</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.000</u>	
SVMP-B2	<u>0.053</u>	
SVMP-B3	<u>0.000</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.035</u>	

**PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.**

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?			

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water  
\* Refer to Figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>12 04 18</u> Inspection Personnel: <u>MS/AE (Rox)</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO water in KO tank</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>20</u>	
Knock-out Tank-A	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1	<u>0.0 ppm PTD</u>	<u>0.437 in wc</u>
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>1.576</u>	
SVMP-A3 (335 Chester)	<u>0.086</u>	
SVMP-A4 (337 Chester)	<u>0.131</u>	
SVMP-A5 (339 Chester)	<u>00</u>	<u>Air compressor Blow out n. OSC</u>

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1	<u>18.06</u>	
MG-A2	<u>17.95</u>	
MG-A3	<u>17.81</u>	
MG-A4	<u>17.71</u>	
MG-A5	<del>0.0</del>	<del>Air compressor Blow out</del>
MG-A6	<u>15.86</u>	
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12	<u>7.894</u>	
MG-A13	<u>8.064</u>	
MG-A14		

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>690 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Kubota E2209 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>12/04/18</u> Inspection Personnel: <u>MS/AF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Should always be drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>no water in KO tank</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system:

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>50</u>	
Knock-out Tank-B	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments <u>PIA 0.0 ppm</u>
	<u>0.523</u>	
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.0</u>	<u>compressor blow out 0.033</u>
SVMP-B2	<u>0.0</u>	<u>compressor blow out 0.056</u>
SVMP-B3	<u>0.0</u>	<u>compressor blow out 0.085</u>
SVMP-B4	<u>0.0</u>	<u>compressor blow out 0.012</u>
SVMP-B5	<u>0.0</u>	<u>compressor blow out 0.033</u>

\* PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	
Suction Point*	Vacuum (in. w.c.)	Comments	
MG-B1	<u>36.11</u>		
MG-B2	<u>37.92</u>		
MG-B3	<u>37.60</u>		
MG-B4	<u>39.73</u>		
MG-B5	<u>38.08</u>		
MG-B6	<u>38.86</u>		
MG-B7	<u>38.61</u>		
MG-B8	<u>17.23</u>		
MG-B9	<u>17.28</u>		
MG-B10	<u>16.28</u>		
MG-B11	<u>16.27</u>		
MG-B12	<u>16.02</u>		
MG-B13	<u>10.53</u>		
MG-B14	<u>10.19</u>		
MG-B15	<u>9.84</u>		
MG-B16	<u>9.77</u>		
MG-B17	<u>—</u>	<u>Door sealed</u>	

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>1-29-19</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>AVERAGE 10 GAL.</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>22</u>	
Knock-out Tank-A1	<u>20</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>0.815</u>	
SVMP-A3 (335 Chester)	<u>0.070</u>	
SVMP-A4 (337 Chester)	<u>0.079</u>	
SVMP-A5 (339 Chester)	<u>0.012</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.01 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>1-29-19</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>APPROX 5 GAL.</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>58</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.064</u>	
SVMP-B2	<u>0.053</u>	
SVMP-B3	<u>0.004</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.013</u>	

**PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.**

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water  
\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: Marcus Garvey Apartments (BCP Site No. C224198)  
 Street Address: 650 Rockaway Avenue  
 Location: Brownsville, NY  
 System: Active Mix Use Sub-Slab Depressurization System  
 Blower: Rotron EN858, 7.5 Hp (Blower A)  
 Blower Range: 120 IWG pressure, 98 IWG vac, 400 cfm

Inspection Date: 2-27-19  
 Inspection Personnel: CLIFF

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)	✓		AVERAGE 8 GAL.
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	22	
Knock-out Tank-A1	20	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	0.721	
SVMP-A3 (335 Chester)	0.066	
SVMP-A4 (337 Chester)	0.075	
SVMP-A5 (339 Chester)	0.010	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	—	—	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1		
MG-A2		
MG-A3		
MG-A4		
MG-A5		
MG-A6		
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12		
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>2-27-19</u> Inspection Personnel: <u>CLIFF</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>AVERAGE 0 GAL.</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>52</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.051</u>	
SVMP-B2	<u>0.050</u>	
SVMP-B3	<u>0.004</u>	
SVMP-B4 (331 Chester)	<u>0.000</u>	
SVMP-B5	<u>0.010</u>	

**PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.**

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-B1		
MG-B2		
MG-B3		
MG-B4		
MG-B5		
MG-B6		
MG-B7		
MG-B8		
MG-B9		
MG-B10		
MG-B11		
MG-B12		
MG-B13		
MG-B14		
MG-B15		
MG-B16		
MG-B17		

in. w.c. - inches of water

\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points



**BLOWER A (SOUTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN858, 7.5 Hp (Blower A)</u> Blower Range: <u>120 IWG pressure, 98 IWG vac, 400 cfm</u>	Inspection Date: <u>3/12/19</u> Inspection Personnel: <u>LEVI CURNUTT</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>- Pump running light but not working</u>
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>~10 GALLONS</u>
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: \_\_\_\_\_

Blower Influent	Vacuum (in. w.c.)	Comments
INF-A1 (after knock-out tank)	<u>24</u>	
Knock-out Tank-A1	<u>24</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-A1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-A2	<u>1.652</u>	
SVMP-A3 (335 Chester)	<u>0.080</u>	
SVMP-A4 (337 Chester)	<u>0.116</u>	
SVMP-A5 (339 Chester)	<u>0.011</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-A2, SVMP-A3, SVMP-A4, OR SVMP-A5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly? -	<input type="checkbox"/>	<input type="checkbox"/>	

Suction Point*	Vacuum (in. w.c.)	Comments
MG-A1	<u>-11.74</u>	
MG-A2	<u>-12.25</u>	
MG-A3	<u>-10.32</u>	
MG-A4	<u>-18.54</u>	
MG-A5	<u>(LC) 17.25</u>	
MG-A6	<u>17.25</u>	
MG-A7		
MG-A8		
MG-A9		
MG-A10		
MG-A11		
MG-A12	<u>9.36</u>	
MG-A13		
MG-A14		

in. w.c. - inches of water  
 \* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

**BLOWER B (NORTHERN) SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE FORM**

Site Name: <u>Marcus Garvey Apartments (BCP Site No. C224198)</u> Street Address: <u>650 Rockaway Avenue</u> Location: <u>Brownsville, NY</u> System: <u>Active Mix Use Sub-Slab Depressurization System</u> Blower: <u>Rotron EN909 15 Hp (Blower B)</u> Blower Range: <u>120 IWG pressure, 100 IWG vac, 600 cfm</u>	Inspection Date: <u>3/12/19</u> Inspection Personnel: <u>LEU CURNUTTE</u>
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INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are any warning lights on? (Please list those that are on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- Pump Running Light bulb - not working
If there is an alarm condition, was it fixed and the system restarted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the blower enclosure in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves (at blower and aboveground piping) in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the vacuum filter in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the knock-out tank need to be drained? (Record amount drained)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No water
Are aboveground piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are vacuum/pressure gauges at blower operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are interior piping free of cracks, leaks, and support issues?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are the valves on SVE wells 1 and 2 open?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

List maintenance activities that were performed or other comments about the system: "Pump Running" bulb not working

Blower Influent	Vacuum (in. w.c.)	Comments
INF-B1 (after knock-out tank)	<u>54</u>	
Knock-out Tank-B1	<u>50</u>	
Blower Effluent	Pressure (in. w.c.)	Comments
EFF-B1		
Soil Vapor Monitoring Point*	Vacuum (in. w.c.)	Comments
SVMP-B1	<u>0.011</u>	
SVMP-B2 <u>B3</u>	<u>0.003</u>	<u>w/ Fluke + UET</u>
SVMP-B3 <u>B2</u>	<u>0.035</u>	<u>0.067</u>
SVMP-B4 (331 Chester)	<u>0.002</u>	<u>No sediment/water inside MP, w/ Fluke + UET</u>
SVMP-B5	<u>0.035</u>	

PERFORM THE FOLLOWING ONLY IF VACUUM READING AT SVMP-B2, SVMP-B3, SVMP-B4, OR SVMP-B5 IS LESS THAN 0.004 IN. W.C.

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Are interior vacuum gauges operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	
Suction Point*	Vacuum (in. w.c.)	Comments	
MG-B1	<u>-34.14</u>		
MG-B2	<u>35+</u>		
MG-B3	<u>37+</u>		
MG-B4	<u>31+</u>		
MG-B5	<u>31+</u>		
MG-B6	<u>30+</u>		
MG-B7	<u>31+</u>		
MG-B8			
MG-B9			
MG-B10			
MG-B11			
MG-B12			
MG-B13	<u>7.13</u>		
MG-B14	<u>6.81</u>		
MG-B15	<u>6.25</u>		
MG-B16	<u>6.13</u>		
MG-B17	<u>locked</u>		

in. w.c. - inches of water

\* Refer to figure for locations of Soil Vapor Monitoring Points and Suction Points

1. Exceedances of AWQSGVs in Groundwater

MW-5S	8/19/14	8/19/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	3/15/18	12/4/18
<b>VOCs</b>		DUP							
Chloroform	ND	ND	9.8	NE	ND	ND	ND	ND	ND

MW-1	8/20/14	7/14/16	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	3/15/18	12/4/18
<b>VOCs</b>			DUP							DUP	
Cis-1,2-Dichloroethylene	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	60 JD	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	3200 D	220	240	110	62	78	31	16	18	14	21
Trichloroethylene (TCE)	40 D	NE	NE	ND	NE	NE	NE	NE	NE	NE	NE

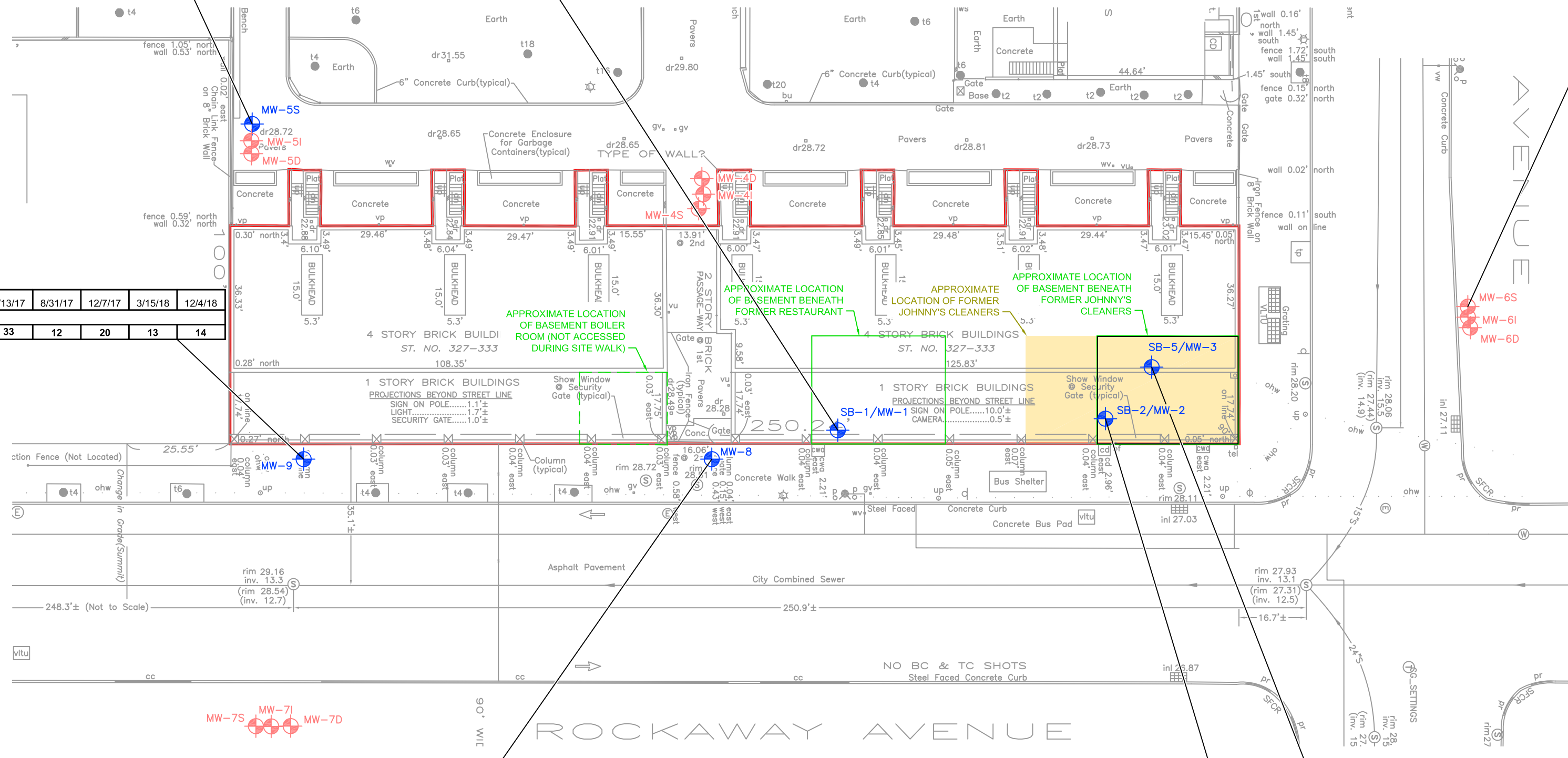
MW-6S	8/18/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17
<b>VOCs</b>						
Tetrachloroethylene (PCE)	7.2	NE	NE	ND	ND	NE

MW-9	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>								
Tetrachloroethylene (PCE)	20	24	35	33	12	20	13	14

MW-2	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>									
Acetone	ND	ND	200	NE	NE	NE	NE	NE	ND
Cis-1,2-Dichloroethylene	190 JD	ND	ND	ND	ND	ND	ND	ND	ND
Dichloroethylenes	190 JD	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	7700 D	49	NE	9.1	11	NE	NE	5.3	8.1
Trichloroethylene (TCE)	110 D	NE	ND	ND	ND	ND	ND	ND	ND

MW-3	8/20/14	7/14/16	8/18/16	2/28/17	6/13/17	8/31/17	8/31/17	3/15/18	12/4/18
<b>VOCs</b>							DUP		
Acetone	ND	ND	58	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	2700 D	32	ND	NE	NE	NE	NE	NE	NE
Trichloroethylene (TCE)	28 D	ND	ND	ND	ND	ND	ND	ND	ND

MW-8	7/14/16	8/18/16	8/18/16	2/28/17	6/13/17	8/31/17	12/7/17	3/15/18	12/4/18
<b>VOCs</b>			DUP						
Chloroform	12	19	19	NE	ND	ND	NE	NE	ND
Tetrachloroethylene (PCE)	140	140	140	36	22	20	20	17	17

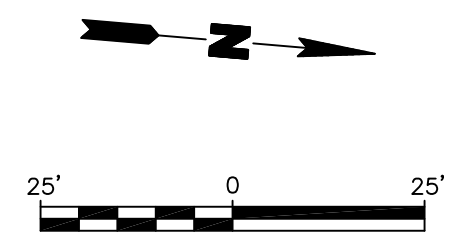


- LEGEND**
- MW-4: LOCATION AND DESIGNATION OF MONITORING WELL IN LONG-TERM MONITORING SITE NETWORK
  - MW-1: LOCATION AND DESIGNATION OF MONITORING WELL NO LONGER IN USE
  - Red line: BCP SITE/ENVIRONMENTAL EASEMENT BOUNDARY
  - Yellow shaded area: APPROXIMATE FOOTPRINT OF FORMER JOHNNY'S CLEANERS/ENVIRONMENTAL EASEMENT BOUNDARY
  - Green dashed line: APPROXIMATE LOCATION OF BASEMENT (DASHED LINE INDICATES BASEMENT NOT ACCESSED DURING SITE WALK)

- DATA BOX KEY**
- SAMPLE LOCATION
  - SAMPLE DATE
  - µg/L - MICROGRAMS PER LITER
  - \* - NYSDEC AWQSGVS
  - NYSDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
  - AWQSGVS - AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
  - D - DILUTION
  - J - ESTIMATED VALUE
  - DUP - DUPLICATE SAMPLE
  - VOCs - VOLATILE ORGANIC COMPOUNDS
  - ND - NO DETECTION
  - NE - NO EXCEEDANCES

- NOTES**
- SITE PLAN ADAPTED FROM SURVEY PREPARED BY MONTROSE SURVEYING CO., LLP (SURVEY NO. 64991-1D)
  - WELLS THAT ARE IN THE LONG-TERM SITE MONITORING NETWORK ARE MW-1, MW-2, MW-3, MW-5S, MW-8 AND MW-9.
  - ON NOVEMBER 21, 2017, NYSDEC APPROVED THE REMOVAL OF MW-6S FROM THE LONG-TERM SITE MONITORING NETWORK.

Parameter	Standards (µg/L)
<b>VOCs</b>	
Acetone	50
Chloroform	7
Cis-1,2-Dichloroethylene	5
Dichloroethylenes	5
Tetrachloroethylene (PCE)	5
Trichloroethylene (TCE)	5



Title: **EXCEEDANCES OF AWQSGVs IN GROUNDWATER**

MARCUS GARVEY APARTMENTS  
650 ROCKAWAY AVE., BROOKLYN, NEW YORK

Prepared for: **C & C APARTMENT MANAGERS LLC**

<b>ROUX</b>	Compiled by: L.C.	Date: 32DEC18	PLATE <b>1</b>
	Prepared by: G.M.	Scale: AS SHOWN	
	Project Mgr: L.C.	Project: 2158.0002Y004	
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