

255 Randolph Street

Interim Remedial Measures Work Plan

255 Randolph Street – Brooklyn, NY
Block 2979, Lot 45
BCP Site # C224247

Submitted to:
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
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CERTIFICATIONS

I, Matthew M. Carroll, certify that I am a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Interim Remedial Measures Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

091629

NYS Professional Engineer #

12/18/17

Date

Matthew M. Carroll, P.E.
Signature

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LIST OF ACRONYMS

AGV	NYSDOH Air Guidance Value
AOC	area of concern
AS	air sparging
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
ECL	Environmental Conservation Law
BTEX	benzene, toluene, ethylbenzene and xylenes
CAMP	Community Air Monitoring Program
C&D	construction and demolition
CDS	construction dewatering system
Class GA Standards	NYSDEC TOGS 1.1.1 Class GA Ambient Water Quality Standards and Guidance Values
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations
CPP	Citizen Participation Plan
COC	Certificate of Completion
DCE	dichloroethylene
DER-10	NYSDEC Division of Environmental Remediation (DER), DER-10 / Technical Guidance for Site Investigation and Remediation
DRO	diesel range organics
DOC	dissolved organic carbon
DUSR	Data Usability Summary Report
EC	engineering control
ESA	Environmental Site Assessment
EZ	exclusion zone
FB	field blanks
FER	Final Engineering Report
ft-bs	feet below building slab
ft-bg	feet below sidewalk grade
ft-msl	feet above mean sea level
HASP	Health and Safety Plan
HSA	Hollow Stem Auger
HSO	Health and Safety Officer
IC	institutional control
ISCO	in-situ chemical oxidation
IRM	Interim Remedial Measure
MW	monitoring well
NGVD	National Geodetic Vertical Datum
NIOSH	National Institute for Occupational Safety and Health
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCDOT	New York City Department of Transportation
NYCRR	New York Codes, Rules and Regulations

NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOH-ELAP	NYSDOH Environmental Laboratory Approval Program
OSHA	Occupational Safety and Health Association
PCB	polychlorinated biphenyl
PCE	perchloroethylene, aka tetrachloroethylene
PID	photoionization detector
PP Metals	Priority Pollutant Metals
PPE	personal protective equipment
QA/QC	quality assurance / quality control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Plan
RCNY	Rules of the City of New York
RMO	Remedial Measure Objective
RE	Remedial Engineer
RI	remedial investigation
RSCOs	Recommended Soil Cleanup Objectives
RCUSCOs	6 NYCRR 375-6.8(b) – Restricted-Commercial Use Soil Cleanup Objectives
RRUSCOs	6 NYCRR 375-6.8(b) – Restricted-Residential Use Soil Cleanup Objectives
SB	soil boring
SV	soil vapor
SMP	Site Management Plan
SMMP	Soil/Material Management Plan
SSDS	sub-slab depressurization system
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
TAL	Target Analyte List
TAGM 4046	NYSDEC Technical and Administrative Guidance Memorandum #4046
TB	trip blanks
TCE	trichloroethylene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TCLP Limits	USEPA Maximum Concentrations of Contaminants for the Toxicity Characteristic
TOC	total organic carbon
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
UUSCOs	6 NYCRR 375-6.8(a) Track 1 Unrestricted Use Soil Cleanup Objectives
VOC	volatile organic compound

EXECUTIVE SUMMARY

SITE DESCRIPTION/PHYSICAL SETTING/SITE HISTORY

This Interim Remedial Measures (IRM) Work Plan was prepared by Matthew M. Carroll, P.E. and Tenen Environmental (Tenen) on behalf of 255 Randolph Street Properties, LLC (the “Participant”). On May 11, 2017, the Participant entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to investigate and remediate the property located at 255 Randolph Street (Block 2979, Lot 45) in the Brooklyn Borough of New York (the “Site”). The New York State Brownfield Cleanup Agreement Index Number is C224247-01-17 and the Site Number is C224247. The Site location is shown on Figure 1.

The Participant is proposing to remove F-listed and potentially D-listed hazardous soil, operate a soil vapor extraction (SVE) system, install an active sub-slab depressurization system (SSDS) to be operated after the SVE system is shut-off and install a composite cover system. A draft Remedial Investigation Work Plan (RIWP) is being reviewed by NYSDEC and the New York State Department of Health (NYSDOH).

The objective of the IRM Work Plan is to provide the means and methods to remediate areas of concern identified during the previously completed investigations (including F-listed hazardous soil and elevated soil vapor concentrations), to be protective of human health and the environment, mitigate the potential migration of contaminants in soil vapor into the Site building and neighboring structures, and to facilitate continued industrial or commercial use of the property.

The goals of the IRM Work Plan are to 1) remove F-listed and potentially D-listed hazardous soil; 2) remediate soil and soil vapor, and prevent future migration of soil vapor, by installing an SVE system; and, 3) mitigate the potential for indoor air impacts by installing an active SSDS.

SUMMARY OF THE REMEDIAL INVESTIGATIONS

The findings of past environmental investigations indicate the presence of chlorinated solvents in indoor air, soil vapor, soil and groundwater above regulatory levels at or near the Site. The concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) detected in soil vapor and indoor air should be mitigated or reduced at the Site based on the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, with updates (October 2006), collectively the “Soil Vapor Intrusion Guidance”. PCE and TCE were detected in soil above the Part 375 Industrial Use and Protection of Groundwater soil cleanup objectives (SCOs). PCE, TCE and their breakdown compounds were detected in groundwater above the Class GA Standards, as included in Technical and Operational Guidance Series (TOGS) Memorandum 1.1.1.

PRELIMINARY QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

The results of the sampling completed to-date provided sufficient data to complete a preliminary Qualitative Human Health Exposure Assessment (QHHEA), which identified a complete exposure pathway associated with implementation of the IRM:

- direct contact with surface and subsurface soils (and incidental ingestion);
- inhalation of vapors.

Additional remedial investigation activities will be implemented and the QHHEA will be updated.

The potential exposure pathways associated with the IRM are temporary and of limited duration. Worker exposure to impacted soil vapor and soil will be addressed by adherence to health and safety protocols. Potential exposure of neighborhood residents and other off-site populations to airborne vapors and potentially-impacted soil will be addressed through compliance with the Community Air Monitoring Plan (CAMP). The CAMP is included in Appendix A of this Interim Remedial Measures Work Plan (IRMWP).

SUMMARY OF THE INTERIM REMEDIAL MEASURES

The proposed interim remedial measures consist of the following:

1. Removal of the existing first floor concrete slab and excavation of soil/fill to a minimum depth of one foot below sidewalk grade (approximately three feet below the existing first floor slab) within the entire building footprint [10,927 square foot (SF)], not including the 3,700 SF cellar. Excavation and off-site disposal of soil that is D-listed hazardous, contains PCE or TCE above the Commercial Use SCO or is required for grading. The soil with the highest concentrations of PCE and TCE will be disposed as F-listed hazardous soil (F-002, spent halogenated solvents including PCE and TCE) and potentially D-listed hazardous soil (D-039, PCE or D-040, TCE) unless a *contained-in determination* is received. Characterization of additional excavated soil for on-site reuse (filling basement area) or off-site disposal in accordance with a *contained-in determination*. Excavated soil will be sampled for full-scan analysis to ensure the soil meets the re-use requirements specified in NYSDEC DER-10. Soil will be screened for indications of contamination by visual means, odor and monitoring with a photoionization detector (PID);
2. Disposal of impacted material from the Site in accordance with all federal, state and local rules and regulations for handling, transport, and disposal;
3. Collection and analysis of end-point soil samples to evaluate attainment of Part 375 Commercial Use SCOs.
4. If needed, import of materials to be used for backfill and cover in compliance with: (1) the lower of the Part 375 Commercial Use SCOs and Protection of Groundwater SCOs and (2) all federal, state and local rules and regulations for handling and transport of material.
5. Design and installation of an SVE system to address elevated chlorinated solvents in soil vapor and residual soil. A pilot study will be completed to determine the final number and

locations of the SVE extraction points. A vacuum reading of 0.1 inches of water gauge (in-wc) induced in the vapor monitoring points will be considered an acceptable value indicating that vacuum is being induced. A final SVE Design Report will be submitted under separate cover to NYSDEC;

6. Design and installation of an active SSDS to depressurize beneath the entire footprint of the on-site building to address elevated VOC concentrations in sub-slab soil vapor. The SSDS will be designed in general accordance with the NYSDOH Soil Vapor Intrusion Guidance. The performance goal of the SSDS will be to depressurize below the slab to at least -0.02 in-wc; however, differential pressure readings above -0.004 in-wc will be considered acceptable. The design and system operation will be verified and certified by the Remedial Engineer. The SSDS will be a long-term engineering control that will be operated after SVE system is shut-down. A Site Management Plan (SMP) will be prepared and will include a provision for evaluation of current and potential indoor air impacts from contaminants via the soil vapor intrusion pathway for any new buildings developed on the Site and/or re-occupancy or change in use of existing buildings, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion. This provision will also include monitoring/active mitigation for vapor intrusion for any new buildings developed on the Site, as may be required. Potential off-site soil vapor impacts will be investigated and addressed in a Remedial Action Work Plan (RAWP). Following implementation of the RAWP, the SMP will be updated to address any off-site requirements;
7. Installation of a composite cover system including a minimum six-inch thick concrete building slab underlain by a minimum two-inch thick Cupolex® concrete forming system and minimum two-inch thick asphalt cap behind the building.
8. A Community Air Monitoring Program (CAMP) for particulates and volatile organic compounds will be implemented during all ground intrusive and soil handling activities, including soil removal and system installation. A Health and Safety Plan (HASP) will also be implemented to protect workers from exposure to volatile organic compounds (VOCs). Air monitoring will be conducted during excavation activities and SVE/SSDS installation, and the contractor will suppress dust as needed during IRM implementation at the Site, in accordance with the CAMP.
9. Preparation of a IRM Construction Completion Report (CCR) to document the implemented interim remedial measures.

Interim remedial activities will be performed at the Site in accordance with this NYSDEC-approved IRM Work Plan. Any deviations from the IRM Work Plan will be promptly reported to NYSDEC.

INTERIM REMEDIAL MEASURES WORK PLAN

1.0 INTRODUCTION

255 Randolph Street Properties, LLC (the “Participant”) entered into the Brownfield Cleanup Program (BCP No. C224247) with the New York State Department of Environmental Conservation (NYSDEC) as a “Participant”, to investigate and, where necessary, remediate contaminated soil, groundwater and soil vapor associated with the Site, which is an 18,600-square foot (SF) one-story industrial building with a partial basement. The Site is currently vacant.

The Participant entered into a Brownfield Cleanup Agreement (BCA) with NYSDEC on May 11, 2017. A Remedial Investigation Work Plan (RIWP) is currently under review by NYSDEC and the New York State Department of Health (NYSDOH). The existing soil, groundwater and soil vapor data analyzed to-date is summarized in Section 2.0.

The objective of the Interim Remedial Measures (IRM) Work Plan is to: provide the means and methods to remediate areas of concern identified during the previously completed investigations (including F-listed and potentially D-listed hazardous soil and elevated soil vapor concentrations), to be protective of human health and the environment; mitigate the potential further migration of contaminants in soil vapor into the Site building and neighboring structures, and to facilitate continued industrial or commercial use of the property.

The IRM Work Plan includes the design and installation of a soil vapor extraction (SVE) system, installation of an active sub-slab depressurization system (SSDS) and removal of soil, including F-listed hazardous soil [F-002, spent halogenated solvents including tetrachloroethene (PCE) and trichloroethene (TCE)] and potentially D-listed hazardous soil (D-039, PCE or D-040, TCE).

The procedures and reporting requirements contained in the IRM Work Plan are in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). Consistent with Sections 1.11 and 5.3 of the DER-10 document, this IRM Work Plan includes the following items:

- A summary of environmental investigation findings and a description of the Remedial Areas of Concern identified by these investigations;
- A description of the proposed interim remedial measures, remedial technologies and associated sampling and monitoring;
- A listing of applicable guidance and standards relating to the work;
- Health and Safety and Community Air Monitoring Plans that describe monitoring procedures and vapor, odor and dust control to be implemented during the remedial activities;
- A schedule for implementation and reporting; and,
- A Professional Engineer’s certification.

1.1 Site Location and Description

The Site, located at 255 Randolph Street, is a rectangular parcel of land located north of Randolph Street between Scott and Seneca Avenues in the heavily industrial East Williamsburg area of Brooklyn.

The Site area is 18,600 square feet (0.43 acre) with 75 feet of frontage along Randolph Street. The Site is occupied by a one-story industrial building with a partial basement. The Site is currently vacant. The Site is located in Brooklyn Community Board 1 and is identified on New York City tax maps as Kings County Block 2979, Lot 45.

The Site location is shown on Figure 1 and the Site layout is shown on Figure 2.

1.2 Description of Surrounding Property

The surrounding property uses are industrial to the west, east and south of the Site with a New York and Atlantic Railway (NYA) line immediately north of the Site. North of the NYA right of way is a solid waste handling facility.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

A draft RIWP is being reviewed by NYSDEC and NYSDOH. The sampling that has been completed is sufficient to complete a preliminary QHHEA for the proposed interim remedial measures. The following sections summarize the sampling that has been completed to-date.

2.1 Summary of Remedial Investigations Performed

In 2014 and 2016, environmental investigations were conducted at the Site, and are summarized in the following reports:

- *Phase II Subsurface Investigation*, 255 Randolph Street, Brooklyn, NY, prepared by Advanced Cleanup Technologies, Inc. (February 21, 2014).
- *Draft Environmental Site Summary Report*, 255 Randolph Street, Brooklyn, NY, prepared by Edgewater Environmental, Inc. (April – May 2014).
- *Draft Remedial Investigation Report*, Industrial Property - 255 Randolph Street, Brooklyn, NY, prepared by Laurel Environmental Associates (October 2016).

The findings of the above investigations are summarized below. The referenced reports are included in Appendix I. Previous sample locations are shown on Figure 2.

In the analysis below, soil sample results are compared to New York State Part 375 Unrestricted Use, Commercial Use, Industrial Use and Protection of Groundwater Soil Cleanup Objectives (SCOs). Groundwater results are compared to the Class GA Standards. Soil vapor and indoor air results are analyzed using the NYSDOH 2017 Soil Vapor Intrusion Guidance.

Phase II Subsurface Investigation, 255 Randolph Street, Brooklyn, NY, prepared by Advanced Cleanup Technologies, Inc. (February 21, 2014).

The Phase II field work was conducted on February 10 through 12, 2014, and included a geophysical survey to evaluate the presence and location of the suspect UST (no evidence of the UST was identified at the Site), sampling of four soil borings, and installation and sampling of four temporary groundwater monitoring wells. All four soil samples and two of the groundwater samples (TW-1 and TW-4) were submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and RCRA metals (dissolved metals were analyzed in the groundwater samples). The groundwater samples from wells TW-2 and TW-3 were analyzed for VOCs only.

No compounds were detected above the Industrial Use SCOs. PCE was detected above the Commercial Use and Protection of Groundwater SCOs. Several chlorinated VOCs (cVOCs) were detected above the Unrestricted Use and Protection of Groundwater SCOs but below the Commercial Use SCOs. These include: 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride.

Lead and mercury were detected above the Unrestricted Use SCOs, but below all other SCOs. No SVOCs, pesticides or PCBs were detected above relevant SCOs.

Groundwater results were compared to the Class GA Standards. PCE, TCE, cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), vinyl chloride, 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA) and chloroform were detected above the Class GA Standards.

Draft Environmental Site Summary Report, 255 Randolph Street, Brooklyn, NY, prepared by Edgewater Environmental, Inc. (April – May 2014).

The sampling scope included advancing soil borings at four exterior locations (SB-1 through SB-4) and nine interior locations (SB-5 through SB-13). Eighteen soil samples were collected for laboratory analysis of VOCs. In addition, groundwater samples were collected from temporary wells installed at four of the soil boring locations (GW-1 through GW-4).

No VOCs exceeded the Industrial or Commercial Use SCOs. The following cVOCs were detected above the Unrestricted Use and Protection of Groundwater SCOs: PCE, TCE and cis-1,2-DCE. One other compound, 2-butanone, was also detected in above the Unrestricted Use and Protection of Groundwater SCOs.

Other VOCs that were detected at concentrations exceeding Class GA Standards in at least one groundwater sample were trans-1,2-DCE, vinyl chloride, 1,1,1-TCA, 1,1-dichloroethane and naphthalene.

Draft Remedial Investigation Report, Industrial Property - 255 Randolph Street, Brooklyn, NY, prepared by Laurel Environmental Associates (October 2016).

Soil borings were advanced at six locations across the Site (SB-RI1 through SB-RI6). Samples were collected for analysis of full Part 375 parameters. The highest levels of contamination were generally found at shallow depths. PCE and TCE were detected above the Industrial Use and Protection of Groundwater SCOs. The following cVOCs were detected above the Unrestricted Use and Protection of Groundwater SCOs but below the Commercial Use SCOs: 1,1,1-TCA, cis-1,2-DCE. One other compound, 1,4-dioxane, was also detected in above the Unrestricted Use and Protection of Groundwater SCOs but below the Commercial Use SCO.

Historic fill-related compounds, benzo(a)pyrene, arsenic and lead were detected above the Industrial Use and Protection of Groundwater SCOs; barium and nickel were also detected above the Commercial Use and Protection of Groundwater SCOs. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, selenium and mercury were detected above the Unrestricted Use and Protection of Groundwater SCOs. Dibenzo(a)anthracene, indeno(1,2,3-cd)pyrene, hexavalent chromium, trivalent chromium and copper were detected above the Unrestricted Use SCOs but below the Protection of Groundwater SCOs.

Groundwater samples were collected from four permanent monitoring wells installed at the Site during this investigation. Samples were analyzed for full Part 375 parameters, including total and

dissolved metals. PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, vinyl chloride, 1,1,1-TCA, 1,1-DCA and 1,1-dichloroethene (1,1-DCE) were detected above the Class GA Standards. In addition, the pesticide dieldrin and the metals manganese (total and dissolved) and lead (total only) were detected above Class GA Standards.

Based on comparison of concentrations in sub-slab soil vapor samples and an indoor air sample to NYSDOH Soil Vapor Intrusion Guidance, mitigation is required based on the detected concentrations of PCE, TCE, cis-1,2-DCE, vinyl chloride, 1,1,1-TCA and 1,1-DCE. Several other VOCs were found at elevated concentrations in the sub-slab and soil vapor samples.

2.2 Summary of Remedial Investigation Findings

The findings of past environmental investigations indicate the presence of chlorinated solvents in indoor air, soil vapor, soil and groundwater above regulatory levels at or near the Site. The concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) detected in soil vapor and indoor air should be mitigated or reduced at the Site based on the New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidance. PCE and TCE were detected in soil above the Part 375 Industrial Use soil cleanup objectives (SCOs). PCE, TCE and their breakdown compounds were detected in groundwater above the Class GA Standards, as included in Technical and Operational Guidance Series (TOGS) Memorandum 1.1.1.

2.3 Geological Conditions

2.3.1 Topography

The local surface topography generally slopes down to the northwest, toward the English Kills, a tributary of Newtown Creek. Based on the U.S. Geological Survey (Brooklyn-NY 2010 Quadrangle) topographic map, the property lies at an elevation of approximately 17 feet above the National Geodetic Vertical Datum of 1929 (an approximation of mean sea level).

2.3.2 Site Geology and Hydrogeology

Boring logs from prior investigations identified the shallow soil as historic fill material underlain by native sands and gravel to depths of at least 15 feet below sidewalk grade (ft-bg). The glacial sand and gravel extend to approximately 150 ft-bg and are underlain by Gardiners Clay and an unnamed Raritan Formation clay layer. The approximate depth to bedrock is 250 ft-bg.

Groundwater was encountered at an average depth of approximately 13 ft-bg. The measured groundwater flow direction is toward the north.

Previous investigations at the Site have documented groundwater concentrations of contaminants above the NYSDEC Class GA Standards, as documented in the NYSDEC Technical and Operational Guidance Series (TOGS) Memorandum 1.1.1. There are no known wellhead protection areas or specifically designated groundwater recharge areas in the vicinity of the Site. Groundwater in this area is not used as a source of potable water.

2.4 Historic Operations

The Site is currently vacant. The Site was last used for warehousing by an importer of Asian food products, from approximately 2006 until August 2015. The building has been vacant since the end of June 2015. According to the City Directory Abstract, a sheet metal fabricator occupied the Site in the 1990s. Prior to this, according to Sanborn Fire Insurance Maps, the Site was associated with the manufacture of ammonia for many decades, from at least 1907 to 1985. Sanborn maps from 1933 through 2007 show no indication of production operations within the Site boundaries. However, the 1907 Sanborn map shows the manufacturing facility in a different location on the block, with components of such facility within the footprint of the current Site (acid tank and evaporation pan) or partially within the footprint of the current Site (storage area, grinding and mixing area, acid chambers).

2.5 Contamination Conditions

The presumed on-site contaminant sources include the historic use of the Site as a sheet metal fabricator or other unknown manufacturing uses. Off-site, upgradient sources may also be present and will be investigated during implementation of the remedial investigation (RI).

2.6 Environmental and Public Health Assessments

2.6.1 Preliminary Qualitative Human Health Exposure Assessment

Based upon the information collected to date, a preliminary qualitative exposure assessment (EA) has been completed in accordance with Section 3.3(c)4 of DER-10 and the NYSDOH guidance for performing a qualitative EA (NYSDEC DER-10; Technical Guidance for Site Investigation and Remediation; Appendix 3B). The qualitative exposure assessment evaluates the potential for populations to be exposed to Site contaminants during the implementation of the IRM. Additional remedial investigation activities will be completed and the QHHEA will be updated in the Remedial Investigation Report (RIR).

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: (1) a contaminant source; (2) contaminant release and transport mechanisms to an exposed population; (3) a receptor population; (4) a route of exposure; and (5) a point of exposure to a receptor population. Potential contaminant receptors include the following populations:

- Site workers (primarily environmental professionals and contractors)
- Construction workers, visitors or trespassers
- Off-Site building occupants (workers)

The following assessments evaluate how humans might be exposed to Site-related contaminants and whether there are any complete or potentially complete exposure pathways now and under the reasonably anticipated future land use of the Site.

Contaminant Sources

The contaminants of concern at the Site include chlorinated solvents in soil vapor, indoor air, soil and groundwater at concentrations above regulatory levels. Chlorinated compounds, in particular PCE and TCE, are the main contaminants of concern, with detected concentrations requiring mitigation.

The presence of chlorinated solvent compounds is presumed to be attributable to the historic uses of the Site as well as, potentially, off-site sources.

Contaminant Release and Transport Mechanisms

Chlorinated compounds, in particular PCE and TCE, are the main contaminants of concern, with detected concentrations requiring mitigation. Based on the presence of shallow impacts, the soil and soil vapor impacts are, at least partially, attributed to a site source. Elevated, dissolved groundwater concentrations are also present.

Potential Receptor Populations

The potential on-site receptors include Site workers (primarily environmental professionals and contractors), construction workers, visitors or trespassers. The potential off-site receptors include off-site workers, residents and visitors.

Potential Routes and Points of Exposure

The potential exists for exposure via dermal absorption or inhalation if proper protective measures are not implemented. During the implementation of the IRM, the potential for exposure of Site construction workers and nearby residents to contaminated soil, via on-site soil disturbance, would be avoided by implementation of a health and safety plan (HASP) and a Community Air Monitoring Program (CAMP).

The following potential exposure routes are considered incomplete or not applicable to the IRM:

Groundwater Ingestion

New York City code prohibits the use of groundwater for potable purposes. Groundwater will not be encountered during implementation of the IRM; this exposure route is considered below. The groundwater ingestion pathway is incomplete.

Inhalation of Vapors by Building Occupants and Maintenance Workers

This pathway will be evaluated following completion of the IRM. It is assumed that the potential for vapor exposure will remain and an active SSDS will address this pathway.

The following potential exposure routes are considered complete:

Inhalation of Vapors and Particulates by On-Site Environmental and Construction Workers

During excavation and soil handling, on-Site personnel and construction workers may be exposed to dust and vapors via inhalation. Soil vapor intrusion has not been evaluated off-site and is currently a potential exposure pathway.

Dermal Contact with Soil by On-Site Environmental and Construction Workers

During excavation and soil handling, on-Site personnel and construction workers may be exposed to contaminants in soil via dermal contact. Exposure to contaminants in soil will be mitigated via the use of proper personal protective equipment (PPE) detailed in the HASP.

Dermal Contact with Groundwater by On-Site Environmental and Construction Workers

Additional groundwater sampling will be completed by environmental professionals. Exposure to contaminants in groundwater will be mitigated by implementation of a HASP. Groundwater will not be encountered by construction workers during the implementation of the IRM.

Inhalation of Vapors and Particulates by Off-Site Building Occupants

Soil excavation and removal may generate dust and vapors that could be inhaled by off-Site workers. Exposure via this route will be mitigated by implementation of the CAMP. Off-site soil vapor intrusion has not been evaluated and is a potential exposure pathway.

The above potential exposures are limited to the IRM phase and are temporary and of limited duration. Adherence to health and safety protocols will address worker exposure to contaminated soil vapors and particulates. Potential exposure of off-Site residents and building occupants will be addressed by implementation of the Community Air Monitoring Plan (CAMP) included in Appendix A.

2.7 Interim Remedial Measure Objectives

The goals of the IRM Work Plan are to 1) remove F-listed and potentially D-listed hazardous soil; 2) remediate residual impacted soil and soil vapor, and prevent future migration of soil vapor, by installing an SVE system; 3) mitigate the potential for indoor air impacts by installing an SSDS; and 4) install a composite cover system. Based on the results of previous investigations conducted at the Site, the following Remedial Action Objectives (RAOs) have been identified and will be achieved by the IRM described in Section 3.0 of this IRMWP.

The successful implementation of the IRM would ultimately result in installation of an active SVE system to be operated in the near term and installation of an SSDS and composite cover system as long term engineering controls. The SVE will remain active until approval is received from NYSDEC. In addition, excavation of soil that is D-listed hazardous, is impacted with PCE and TCE above the Commercial Use SCOs or as required to lower the Site grade for future development.

2.7.1 Soil

Chlorinated solvents and historic-fill related SVOCs and metals were detected in soil above the Commercial Use SCOs.

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure to contaminants volatilizing from soil.

2.7.2 Soil Vapor

Chlorinated compounds were detected in the soil vapor and indoor air.

RAOs for Public Health Protection

- Reduce the risk of impacts to public health resulting from existing soil vapor intrusion into the Site building.
- Mitigate impacts to public health from existing, or the potential for, soil vapor intrusion into buildings at the Site.

2.7.3 Groundwater

RAOs for Public Health Protection

- Prevent inhalation of volatiles from contaminated groundwater.

3.0 DESCRIPTION OF INTERIM REMEDIAL MEASURE

The IRM will include the removal of the existing first floor concrete slab and excavation of soil/fill that is D-listed hazardous, contains PCE or TCE above the Commercial Use SCO or is required for grading; design and installation of an SVE; and, design and installation of an SSDS. The IRM will be implemented in accordance with the Standards, Criteria and Guidance (SCGs) described in Section 3.1.

3.1 Standards, Criteria and Guidance (SCGs)

The IRM SCGs are listed below.

SCG	Scope / Application
NYSDEC Brownfield Cleanup Program Guide (draft 2004)	General program guidance
NYSDOH Guidance for Evaluating Soil Vapor Intrusions in the State of New York (2006)	Soil vapor guidance
NYSDOH Generic Community Air Monitoring Plan	Plan for monitoring dust and volatile organics resulting from construction activities
NYSDEC DAR-1 Guidelines for the Evaluation and Control of Ambient Air Contaminants Under Part 212	Guidance for treatment of soil vapor exhaust
New York State Codes, Rules and Regulations (NYCRR) Title 6 Part 360 – Solid Waste Management Facilities	Off-site disposal of waste
New York State Codes, Rules and Regulations (NYCRR) Title 6 Part 364 – Waste Transporter Permits	Transporter requirements for off-site disposal of waste
6 NYCRR Part 370 – Hazardous Waste Management System	Disposal of hazardous waste, if encountered
6 NYCRR Part 375 – Environmental Remediation Programs (December 2006)	General administrative guidance
6 NYCRR Part 376 – Land Disposal Restrictions	Disposal of hazardous waste, if encountered
Code of Federal Regulations (CFR) Title 29 Part 1910.120 - Hazardous Waste Operations and Emergency Response Standard	Worker safety
29 CFR Title 29 Part 1926 - Safety and Health Regulations for Construction	Worker safety

4.0 INTERIM REMEDIAL PROGRAM

4.1 Governing Documents

4.1.1 Site Specific Health and Safety Plan

A Site Specific HASP has been created for the Site and is included in Appendix B. All remedial work performed under this plan will be in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA. An emergency contact sheet with names and phone numbers is included in Table 1 of the HASP and defines the specific project contacts for use by NYSDEC and NYSDOH in the case of a day or night emergency. The HASP and requirements defined in this IRM pertain to all remedial and invasive work performed at the Site until the issuance of a Certificate of Completion.

4.1.2 Soil/Materials Management Plan

The Soil/Materials Management Plan (SMMP) includes plans for managing the soils/materials that will be excavated at the Site.

The SMMP, which describes procedures for excavation, handling, storage, and transport and disposal, is included in Appendix C.

4.1.3 Community Air Monitoring Plan

The purpose of the Community Air Monitoring Plan (CAMP) is to protect downwind building receptors (e.g., residences, businesses, schools, nearby workers, and the public) from potential airborne contaminants released as a direct result of the Remedial Action being performed at the Site. A summary of the CAMP plan is included in Appendix A.

4.1.4 Citizen Participation Plan

The Citizen Participation Plan (CPP) enables citizens to participate more fully in decisions that affect their health, environment and social well-being. The CPP will be updated throughout the IRM in response to any community feedback. The current CPP is included in Appendix D.

4.2 General Remedial Construction Information

4.2.1 Project Organization

An organization chart with emergency contacts is included in Table 1. Resumes of key personnel involved in the IRM are presented in Appendix E.

4.2.2 Remedial Engineer

The Remedial Engineer (RE) for this project will be Matthew M. Carroll, P.E. The RE is a registered professional engineer (PE) licensed by the State of New York. The RE will have primary direct responsibility for implementation of the remedial program for the 255 Randolph Street Site (NYSDEC BCA Index No. C224247-01-17; Site No. C224247). The RE will certify in the Interim Remedial Measure Construction Completion Report (IRMCCR) and Final Engineering Report (FER) that the IRM was performed by qualified environmental professionals

under his supervision and that the remediation requirements set forth in the IRMWP and any other relevant provisions of ECL 27-1419 have been achieved in conformance with the IRMWP.

The RE will coordinate the work of other contractors and subcontractors involved in all aspects of remedial construction, including soil removal, air monitoring, emergency spill response, import of back fill material (if any), and management of waste transport and disposal. The RE will be responsible for all appropriate communication with NYSDEC and NYSDOH.

The RE will review all pre-remedial plans submitted by contractors for compliance with this IRMWP and will certify compliance in the FER.

4.2.3 Remedial Action Construction Schedule

A general IRM schedule is included in Table 2.

4.2.4 Utility Markout and Easement Layout

The Participant and its contractors are solely responsible for the identification of utilities that might be affected by work under the IRM and implementation of all required, appropriate, or necessary health and safety measures during performance of work under this IRM. The Participant and its contractors are solely responsible for safe execution of all invasive and other work performed under this IRM. The Participant and its contractors will obtain any local, State or Federal permits or approvals pertinent to such work that may be required to perform work under this IRM. Approval of this IRM by NYSDEC does not constitute satisfaction of these requirements.

4.2.5 Required Permits

Permits are not required to implement the IRM. A *contained-in determination* in accordance with TAGM 3028 will be required if material is proposed to be disposed off-site as non-hazardous material.

4.2.6 Site Security and Signage

The existing walls and access doors at the Site will be maintained as required throughout the IRM. Sidewalks adjacent to the Site will be maintained with barriers, as necessary, to protect the public.

4.2.7 Deviations from the Interim Remedial Measures Work Plan

During the implementation of the IRMWP, any material deviation will be noted and immediately brought to the attention of the RE. The RE or his/her representative will contact the NYSDEC Project Manager and a formal IRM modification will be submitted for NYSDEC approval. Any deviation will be noted in the Site reports and explained in the FER.

4.2.8 *Work Hours*

The hours for operation of remedial construction will conform to the requirements of the City of New York, New York or according to specific variances issued by the governing agency. NYSDEC reserves the right to deny alternate remedial construction hours.

4.2.9 *Traffic Control*

A truck route to and from the Site from the nearest major highway has been selected considering:

- Limited transport through residential areas
- Use of defined truck routes
- Limiting the total distance to the major thoroughfares, and
- Safety in access to highways

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during site remediation and development; trucks exiting the Site will be securely covered. Drivers of trucks leaving the Site with soil/fill will be instructed to proceed without stopping in the vicinity of the Site to prevent neighborhood impacts.

4.2.10 *Contingency Plan*

While discovery of previously unknown areas of concern is not anticipated during implementation of this on-site remedy, contingency remediation may be required if previously unknown areas of concern are encountered during implementation of the IRM. These areas may include USTs and hot spots of an unknown nature. Additional CAMP requirements may be needed depending on the nature of any additional identified impacts. The need for additional remediation will be determined at the discretion of the RE in conjunction with NYSDEC and NYSDOH, and will be completed by a qualified remedial contractor. Exploratory test pits may be excavated first to verify the presence, nature, and size of the potential source area. If conditions are uncovered that could be addressed, remediation will then be completed. Remediation will include excavation of the contamination, collection of end-point soil samples for regulatory close out, and off-site disposal of the materials. Discrete sidewall and excavation floor end-point samples will be collected and analyzed for VOCs in accordance with DER-10.

Contingency for Underground Storage Tanks

While discovery of unknown USTs is not anticipated, USTs encountered during IRM implementation will be decommissioned in accordance with applicable NYSDEC UST closure requirements. The tanks will be decommissioned and removed following the applicable NYSDEC petroleum storage tank closure regulations.

4.2.11 *Worker Training and Monitoring*

Site workers involved with hazardous waste, as determined by 40 CFR 262.11 and ECL 27-0903 or a “source area” as determined by DER-10 1.3(b)70 at the Site will be required, at a minimum, to have completed 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response

(HAZWOPER), site safety training and medical monitoring for site workers. HAZWOPER training completion certificates will be submitted to the RE before commencement of site work.

4.2.12 Pre-Construction Meeting with NYSDEC

The NYSDEC and NYSDOH project managers will be invited to attend a pre-IRM meeting at the Site with all parties involved in the remedial process prior to implementation of the IRM.

4.2.13 Emergency Contact Information

An emergency contact sheet with names and phone numbers is included in Table 1. That document defines the specific project contacts for use by NYSDEC and NYSDOH in the case of a day or night emergency.

4.3 Site Preparation

4.3.1 Mobilization

The contractor will mobilize all necessary materials and equipment on Site directly prior to the initiation of any remedial activities. Material stockpile and equipment decontamination areas will be designated.

4.3.2 Equipment and Material Staging

Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations. There will be no specific material or equipment staging area; any staging will be in areas where space permits. Stockpiles will be contained to prevent run-off and windblown dust. Stockpiles will be placed in clear areas in accordance with Section 1.2 of the Soil/Materials Management Plan included as Appendix C.

4.3.3 Construction Loading Zone

Steps will be taken to ensure that trucks departing the Site will not track soil, fill or debris off-site. Such actions may include use of cleaned asphalt or concrete roads or use of stone or other aggregate-based egress paths at a truck inspection station. Measures will be taken to ensure that adjacent roadways will be kept clean of project-related soils, fill and debris. Additional information is included in Section 5.6.

5.0 INTERIM REMEDIAL MEASURE IMPLEMENTATION: EXCAVATION

The components of the IRM include excavation of soil/fill to an elevation of approximately one foot below existing sidewalk grade; removal of F-listed soil (F-002, spent halogenated solvents including PCE and TCE) and potentially D-listed hazardous soil (D-039, PCE or D-040, TCE) exceeding the Commercial Use SCO; design and installation of an SVE system; installation of an active SSDS; and, installation of a composite cover system (Cupolex and concrete slab) at the Site.

The Site will be excavated to a minimum depth of one foot below sidewalk grade (approximately three feet below the existing first floor slab) to implement the IRM. In addition, F-listed and potentially D-listed soil will be removed. The excavation depths at the Site are consistent with the depth required to install the sub-slab components of the SSDS, align the first floor slab with sidewalk grade and excavate the soils which are potentially D-listed hazardous waste and contain PCE or TCE above the Commercial Use SCOs. Excavation depths for specific areas are depicted in Figure 4.

As further described below, the major components of the excavation remedial action include implementation of the SMMP and CAMP; characterization, excavation and off-Site disposal of impacted materials; and, installation of a composite cover system (concrete slab) over the SVE and SSDS systems, which are described in Sections 6 and 7 of the IRM Work Plan. The SVE system will be operated until approval for shut-down is received from NYSDEC, in consultation with the NYSDOH. The SSDS will be operated after the SVE is shut-down.

5.1 Estimated Material Removal Quantities

The estimated quantity of soil/fill to be excavated to implement the IRM is approximately 1,750 cubic yards (CY), of which up to approximately 1,000 CY may be proposed for reuse.

It is anticipated that three excavations of material with PCE and/or TCE above the Commercial Use SCOs will be completed. The material will be disposed off-site as F-listed and potentially D-listed soil unless, based on sampling, a *contained-in determination* is made. The extents and final hazardous determinations will be based on additional characterization sampling. Based on RI data, it is assumed that the excavations will not extend past the groundwater interface at approximately 13 ft-bg. The areas of known F-listed and potentially D-listed soil are around borings SB-RI1, SB-RI2 and SB-RI6. It is assumed that at each excavation area, approximately 100 square feet will be excavated to the groundwater interface at approximately 13 feet below the first floor slab elevation, for a total of approximately 150 CY of F-listed and potentially D-listed soil.

An additional 1,600 CY of material will be excavated as part of lowering the Site grade to allow for installation of the SSDS and to align the new first floor with the existing sidewalk grade. The soil/fill will be stockpiled and sampled as described in Section 5.2. As noted, up to 1,000 CY of this material may be proposed for reuse; specifically, to backfill the existing basement and the three excavation areas that will extend deeper than the proposed leveling cut.

5.2 Soil Characterization

All soil will be disposed in accordance with NYSDEC requirements, which will require characterization sampling. Discrete and composite soil samples will be collected according to a grid system and analyzed in accordance with typical disposal facility requirements in order to characterize the soil. Samples will be field composited (as necessary), labeled and submitted for laboratory analysis. A field record, including PID readings, will be kept to document the materials encountered and support all sampling decisions.

All material proposed for reuse in the basement or disposal at a facility with a Part 360 Beneficial Use Determination (BUD) will be sampled full Part 375 parameters at a frequency of one sample per 250 cubic yards. All reused material will be located under a cap and, consistent with Table 5.4(e)4 of DER-10, must meet the lower of the Commercial Use and Protection of Groundwater SCOs. Soil characterization results will be provided to NYSDEC for review and no material will be reused without prior, written approval from NYSDEC.

All material proposed for off-site disposal at non-Part 360 BUD facilities will be analyzed for VOCs, SVOCs, pesticides, PCBs and metals on the New York Part 375 SCOs and CP-51 lists and the New Jersey combined Soil Cleanup Criteria lists. In addition, samples will be analyzed for total petroleum hydrocarbons (TPH), toxicity characteristic leachate procedure (TCLP) metals, RCRA characteristics and paint filter test (PFT). These analyses are commonly required by regulated disposal facilities. Please note that there is no standard number of samples or analytes required for all facilities and, therefore, additional samples or analytes may be required at a later date.

5.3 Soil/Materials Management Plan (SMMP)

Soil and materials management on-Site will be conducted in accordance with the SMMP and as described below. The main goal of the SMMP is to handle all potentially contaminated soil and manage activities associated with soil in a manner that prevents contamination from reaching the community, workers, future occupants and workers, and the environment. Contaminated soil must be managed in a manner that ensures removal, transport, and disposal such that it fulfills applicable regulatory requirements. The means and methods to meet this goal are included in the SMMP, included as Appendix C.

5.4 Community Air Monitoring Plan (CAMP)

The main goal of the CAMP is to keep objectionable odors, VOCs and/or particulates from reaching the surrounding community. The Site-specific CAMP that was prepared for the remedial investigation activities, which includes monitoring for VOCs and particulates, will be implemented for the IRM activities.

Should objectionable odors be produced during excavation, the area to be disturbed at any one time will be limited and, if necessary, foam cover will be utilized (Rusmar Incorporated AC-645 Long Duration Foam or approved equivalent), following the manufacturer's recommended application rate.

The CAMP is included in Appendix A.

5.6 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, state, and federal regulations, including 6NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Trucks leaving the Site will head to Flushing Avenue (local truck route) via Seneca Avenue or Scott Avenue. Trucks will turn right on Flushing Avenue, from which they can access the Brooklyn Queens Expressway (expressway through route) via Flushing Avenue or Morgan Avenue (also a local truck route).

This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) limiting total distance to major highways; (d) promoting safety in access to highways; and, (e) overall safety in transport. All trucks loaded with Site materials will exit the vicinity of the Site using only the most-current New York City Department of Transportation (NYCDOT)-approved truck routes (currently the 2015 New York City Truck Route Map).

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. If loads contain wet material capable of producing free liquid, truck liners will be used.

5.7 Remedial Performance Evaluation (Post-Excavation End-Point Sampling)

In the areas of soil with PCE and/or TCE above the Commercial Use SCOs, end-point samples will be collected from the base of the excavation every 900 square feet (SF) and from the sidewalls of the excavation every 30 linear feet (LF), in accordance with DER-10. The post-excavation end-point samples will be analyzed for full scan Part 375 parameters. Figure 5 presents an alpha-numeric grid system for the Site and adjacent units and Figure 6 presents a generalized post-excavation sampling location map.

End-point samples will also be collected in accordance with DER-10 for the area to be excavated/graded outside of the areas with PCE and/or TCE above the Commercial Use SCOs.

All post-excavation sample results will be compared with the Commercial Use and Protection of Groundwater SCOs. Upon receipt of the sample results, any soils not meeting the above regulatory levels will be discussed with NYSDEC and additional excavation may be completed. It is anticipated that additional excavation will only be completed if additional D-list VOCs are encountered and that any additional excavation will not extend below the groundwater interface..

6.0 INTERIM REMEDIAL MEASURE IMPLEMENTATION: INSTALL SVE SYSTEM

In order to address elevated concentrations of chlorinated solvents in soil vapor and residual soil, an SVE will be designed and installed.

6.1 SVE Pilot Test

The SVE pilot test includes the installation of vacuum extraction wells at four locations at the Site, as shown on Drawing X-104 in Appendix F. The SVE pilot test will be completed before the existing slab is removed and the SVE system will begin operation after the new slab is installed. At each location, three 1-inch vapor monitoring points will be installed at distances of 8, 15 and 25 feet from the vacuum extraction well. Existing overburden monitoring wells may also be used to determine the radius of influence if the wells are screened spanning the water table and are determined by the RE to be sufficient in evaluating the effectiveness or radius of influence of the SVE system. The 1-inch monitoring points will be orientated in different directions around each extraction well. The extraction wells will be installed using the hollow stem auger drilling method. The extraction wells will be constructed of 4-inch Schedule 40 PVC 20-slot well screen and solid riser pipe. Each extraction well will be constructed with a screen that will be set in the unsaturated zone from four feet below the existing first floor slab to three feet above the groundwater interface, generally four to 14 ft-bg. The annular space around each well screen will be backfilled with No. 2 sand to at least two feet above the well screen. A two-foot bentonite seal will then be placed atop the sand pack and the borehole will be grouted to grade using a bentonite Portland cement mixture.

The vapor monitoring points will be installed using a track mounted Geoprobe® direct push drill rig. The SVE monitoring points will be constructed of 1-inch Schedule 40 PVC 10-slot well screen set at the two-foot intervals within the screened interval of the extraction wells. Assuming no intervals of different apparent permeabilities are identified in the four to 14 ft-bg interval, the monitoring points around each extraction well will be screened from five to seven ft-bg, eight to ten ft-bg and eleven to 13 ft-bg. The vapor point wells will be constructed in a similar manner to the extraction wells. Extraction well and vapor monitoring point construction details are included on Drawing X-105 in Appendix F.

Vacuum will be applied to each of the extraction wells using a 2.5 HP regenerative blower. Given the anticipated soil permeability, a 2.5HP blower should be sufficient to induce vacuum at varying distances from the SVE well. A well cap with a threaded brass barbed fitting will be fitted to each SVE monitor point and ¼ inch polyethylene tubing will be attached to each well head to allow for measurement of vacuum in the soil at each vapor monitoring point during the pilot test. Incremental vacuum rates will be applied to each extraction well for a period of two hours or longer, as determined by field readings. Applied vacuum rates will be regulated through the use of a dilution valve. During testing, if short circuiting is encountered at an extraction well, or in the SVE testing area, provisions will be made to seal any cracks in the existing concrete slab. Field monitoring during testing will ensure that no short circuiting will occur. A manometer will be used to measure the pressure differential in the extraction wells and vapor monitoring

points. A vacuum reading of 0.1 in-wc induced in outlying vapor points will be considered an acceptable value indicating that vacuum is being induced in the monitoring point.

During pilot testing, the SVE effluent streams will be monitored for VOCs using a PID and/or a Flame Ionization Detector (FID), and the air flow rate will be measured.

During pilot testing, effluent vapor samples will be collected from each of the SVE wells using individually-certified 6-Liter Summa Canisters in accordance with NYSDOH Soil Vapor Sampling Guidelines. The vapor samples will be sent to a New York State certified laboratory where they will be analyzed for the presence of VOCs using EPA Method TO-15. Laboratory reporting limits will be below 0.2 ug/m³ for compounds on NYSDOH Decision Matrices A and C and below 1 ug/m³ for compounds on the NYSDOH Decision Matrix B. The results of vapor sampling will be used to design the SVE effluent treatment system. Indoor air sampling will be completed in accordance with a NYSDEC-approved sampling plan before the building is occupied.

All SVE pilot testing effluent streams using two drums of granulated activated carbon (GAC) in series (minimum 170 pounds of GAC in each drum). Sample ports will be installed at the influent, midfluent and effluent streams so that air samples can be collected during testing. Based on PID and FID readings, influent, midfluent and effluent samples will be collected using Summa canisters and sent for laboratory analysis via EPA Method TO-15.

An SMP will be prepared that includes an Operations, Maintenance and Monitoring (OM&M) Plan. The OM&M Plan will be used to determine the efficacy of the SVE system after system start-up.

6.2 SVE System

The goals of the permanent SVE system for the Site are to remove VOCs from the soil and soil vapor, and prevent off-Site migration of soil vapors.

An SVE Design Document will be provided following implementation of the SVE pilot test. In general, the SVE system will include additional SVE extraction wells and/or vapor monitoring points and a long-term regenerative blower and GAC container to treat the effluent. The discharge will be consistent with the NYSDEC DAR-1 guidance.

The SVE system will be installed and operated following installation of the composite cover system described in Section 7.2. The SVE system will be operated and maintained into the future under a Site Management Plan. Any plan to suspend or terminate SVE operations will require NYSDEC approval. Following termination of the SVE system, the active SSDS will be operated as a long-term engineering control, as described in Section 7.1.

Operations, Maintenance and Monitoring (OM&M) Plan

A draft Operations, Maintenance and Monitoring (OM&M) Plan for the SVE is included in Appendix H. The OM&M Plan includes the currently specified items and will be updated following the completion of the SVE.

7.0 INTERIM REMEDIAL MEASURE IMPLEMENTATION: INSTALL SSDS AND COMPOSITE COVER SYSTEM

Following the removal and/or reuse of historic fill/soil as described in Section 5.0, an active SSDS and a composite cover system (concrete slab), will installed at the Site.

7.1 Sub-slab Depressurization System

An active SSDS will be installed to minimize the potential for vapor intrusion. The SSDS will be started up after the SVE system described in Section 6.0 is shut down. The system designs and layouts are shown on drawings X-100 (below grade components), X-101 (pressure monitoring points) and X-102 (roof) and the details are shown on drawing X-103, located in Appendix G. The principal components of the SSDS are a Cupolex® concrete forming system (minimum two-inch thickness), solid-construction piping from the sub-grade Cupolex® system to an exterior suction fan on the roof and pressure-monitoring points through the concrete slab. A cross-section of the first floor slab and SSDS is included on drawing X-103.

The Cupolex® system creates a void space beneath the concrete slab described in Section 7.2, below. Following the excavation described in Section 5, the subsurface will be compacted to a minimum 1,000 pounds per cubic inch (pci) K-value. The height of the Cupolex® system will be based on the final compacted grade relative to the proposed Site grade.

The goals of the systems are to create a pressure differential of at least -0.02 inches of water column (in-wc) between the indoor and sub-slab environments. An alarm system will be installed that will notify the building management if the system is not operating as designed. The system has been designed in general accordance with the NYSDOH Soil Vapor Intrusion Guidance, including Section 4.2.2, *System-specific recommendations*. The exhaust location will be located on the roof and meet the requirements of the NYSDOH Soil Vapor Intrusion Guidance, specifically Section 4.2.2 c (6), which reads:

To avoid entry of extracted subsurface vapors into the building, the vent pipe's exhaust should be:

- i. above the eave of the roof (preferably, above the highest eave of the building at least 12 inches above the surface of the roof),
- ii. at least 10 feet above ground level,
- iii. at least 10 feet away from any opening that is less than 2 feet below the exhaust point, and
- iv. 10 feet from any adjoining or adjacent buildings, or HVAC intakes or supply registers.

In order to size the fan, a blower test will be performed after the sub-grade components and first floor slab are installed. A Site Management Plan (SMP) will be prepared following the implementation of the IRM Work Plan and kept at the Site. The operation of the SSDSs will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the SSDS may be made based on confirmatory sampling.

Piping and Exhaust Location

One PVC riser pipe will run outside the building to the roof. All horizontal piping runs will be slightly pitched back towards the riser pipe to allow for drainage of any moisture. The final location of all vertical riser piping, header piping, and roof mounts will be determined by a Professional Engineer in consultation with the building owner.

The exhaust location, labeling, alarms and system components have been designed in general accordance with the NYSDOH Soil Vapor Intrusion Guidance.

Pressure Monitoring Points

Several pressure monitoring points will be installed through the slab to confirm the resulting pressure field. Monitoring points will extend to the edges of the building to ensure that the full extent of the slab is depressurized.

The proposed pressure monitoring point locations are shown on drawing X-101 and the details are shown on drawing X-103, both in Appendix G.

Pressure Testing and Alarm System

An alarm system will be installed that will notify the building management if the system is not operating as designed. In general, a pressure switch will be placed on the main riser with a field-set switch point. The alarm will be a horn-strobe mounted in an accessible area. Future Site workers will be trained on the alarm system and contact information will be included in the SMP.

The assumed locations of the pressure switches and alarms are shown on drawing X-101 in Appendix G.

Initial Start-Up

After the depressurization system has been installed and the SVE system has been shut down, the following will be completed:

1. visual inspection of first floor slab for any cracks or holes. If any are identified, they will be sealed using caulk;
2. measurement of the sub-slab pressure at the monitoring points to ensure that the remedial goal of -0.02 in-wc has been achieved. If the start-up is not conducted during heating season, the pressure differential will also be measured during heating season to ensure that the remedial goal of -0.02 in-wc has been achieved. While -0.02 in-wc is the design goal, differential pressure readings above -0.004 in-wc will be considered acceptable.
3. if appliances that rely on natural draft for exhaust of carbon monoxide and other combustion gases are identified, the potential for back draft will be tested. The potential for back draft will be determined using a carbon monoxide meter. If any back draft is identified, it will be corrected.

Operations, Maintenance and Monitoring (OM&M) Plan

A draft Operations, Maintenance and Monitoring (OM&M) Plan for the SSDS is included in Appendix H. The OM&M Plan includes the currently specified items and will be updated following the completion of the SSDS.

7.2 Composite Cover System

Exposure to residual soil/fill will be prevented by an engineered, composite cover system to be built on the Site. The composite cover system will include a minimum six-inch thick concrete building slab underlain by the Cupolex® system within the building and a minimum two-inch thick asphalt cap behind the building. The extents of the composite cover system are shown on Figure 7.

Drawing X-103, included in Appendix G, shows the typical designs for the composite cover system. The composite cover system will be present over the entire Site (i.e., there will be no uncapped areas following the implementation of the IRM Work Plan).

8.0 REPORTING

This section outlines the reporting requirements for the Site. All daily and monthly reports will be included in the FER. Job-site record keeping for all remedial work will be appropriately documented. These records will be maintained on-Site at all times during the project and be available for inspection by NYSDEC and NYSDOH staff.

8.1 Daily Reports

Daily reports will be submitted to the NYSDEC Project Manager by the end of each day following the reporting period and will include, at a minimum:

- The official NYSDEC Site name and number;
- An update of progress made during each day;
- Locations of work and quantities of material imported and exported from the Site;
- A summary of any and all complaints with relevant details (names, phone numbers);
- A summary of CAMP findings, including excursions; and,
- An explanation of notable Site conditions.

Daily reporting will be conducted during active Site remediation periods including soil excavation and loading (including CAMP air monitoring) and installation of the SVE system. Exceedances of CAMP action levels will be reported as soon as possible to NYSDEC and NYSDOH. An explanation of exceedances and corrective actions will be included in the daily report, as well as the effectiveness of the corrective actions.

Daily reports are not intended to be the mode of communication for notification to the NYSDEC of emergencies (accident, spill, etc.), requests for changes to the IRM Work Plan or other sensitive or time critical information. However, such conditions must also be included in the daily reports. Changes to IRM Work Plan may require approve from NYSDEC and NYSDOH project managers. Emergency conditions and changes to the IRM Work Plan will be addressed directly to NYSDEC Project Manager via personal communication, with subsequent specific written follow-up in the case of verbal notifications.

Daily reports will include a description of daily activities keyed to a map for the Site that identifies work areas. These reports will include a summary of air sampling results, odor and dust problems and corrective actions, and any complaints received from the public. All complaints received will immediately be reported to NYSDEC.

The NYSDEC assigned project number will appear on all reports.

8.2 Monthly Reports

Monthly reports will be submitted to the NYSDEC Project Manager by the 10th day of the following month and will include, at a minimum:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed (i.e., material exported and imported, etc.);
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and,
- An update of the remedial schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays.

8.3 Interim Remedial Measures Construction Completion Report

An Interim Remedial Measures Construction Completion Report (IRMCCR) will be submitted to NYSDEC after completion of construction of the final phase of the IRM (i.e., SSDS), and will include the following documentation of the IRM:

1. Certification by the RE that the data generated is useable and meets the remedial requirements;
2. Certification by the RE that the interim remedial measures conformed to the IRMWP;
3. Certification by the RE that dust, odor, and vapor control measures were implemented during invasive work and conformed with the IRMWP;
4. Certification by the RE that any remedial waste was transported and disposed in accordance with the IRMWP;
5. Certification by the RE that the source approval and sampling of imported acceptable fill was completed in a manner consistent with the methodology of the IRMWP;
6. Summary of the remedy and all remedial actions completed;
7. Description of any problems encountered and their resolutions;
8. Description of the deviations from the approved IRMWP;
9. Listing of waste streams, quantity of materials disposed, and where they were disposed;
10. Analytical QA/QC completed for the environmental media sampling during the remedial activities, including DUSR or other data validation;
11. List of the remediation standards applied to the remedial actions;
12. List of all applicable local, regional, and national governmental permits, certificates, or other approvals required for the remedial and development work;
13. Tables and figures containing all pertinent pre- and post-remedial data, including volumes of soil removed (as applicable);
14. Description of source and quality of fill (as applicable);
15. Air quality and dust monitoring data, including any supporting documentation on the decisions made based on the data;
16. Copies of all the submitted periodic reports; and
17. Copies of all manifests of off-site transport of waste material.

The SVE system will not be discontinued without prior approval from NYSDEC, in consultation with the NYSDOH. All documents and reports submitted to the NYSDEC will be in both hard copy and in digital format (electronic upload and/or CD). These digital documents shall be in

PDF form and, where appropriate, supplemented by photos and Microsoft Excel files. Laboratory analytical data will be submitted in an electronic data deliverable (EDD) format that complies with the NYSDEC's electronic data warehouse standards.

8.4 Remedial Action Work Plan

A Remedial Action Work Plan (RAWP) will be submitted after the Remedial Investigation has been completed and the nature and extent of contamination has been determined. The RAWP will include a summary of the IRM, an alternatives analysis and description of a final remedy for the Site. Documentation of the IRM activities will be also be included in the CCR, as noted in Section 8.3, and the FER that will be completed after the implementation of the RAWP.

Figures



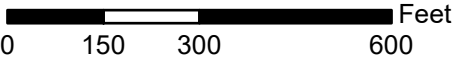
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Site Location



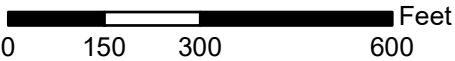
<http://gis.nyc.gov/taxmap/map.htm>

Department of Finance Digital Tax Map



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User

Department of City Planning MapPLUTO - 2016 v2



255 Randolph Street
Brooklyn, New York
Block 2979, Lot 45
BCP #C224247

Site

TENEN ENVIRONMENTAL

Tenen Environmental, LLC
121 West 27th Street
Suite 702
New York, NY 10001
O: (646) 606-2332
F: (646) 606-2379

Drawn By LM

Checked By MC

Date December 2017

Scale As Noted

Site Location Map

Drawing Title

Figure 1

Drawing No



53 West Hills Road, Suite 1
Huntington Station, NY 11746

PHONE: 631-673-0612
FAX: 631-427-5323

Figure 2.0

SITE SKETCH AND
HISTORIC SAMPLE MAP

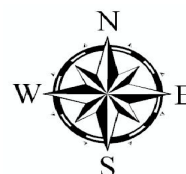
255 RANDOLPH STREET
BROOKLYN, NEW YORK

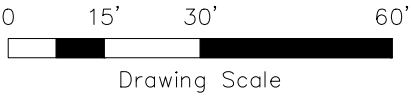
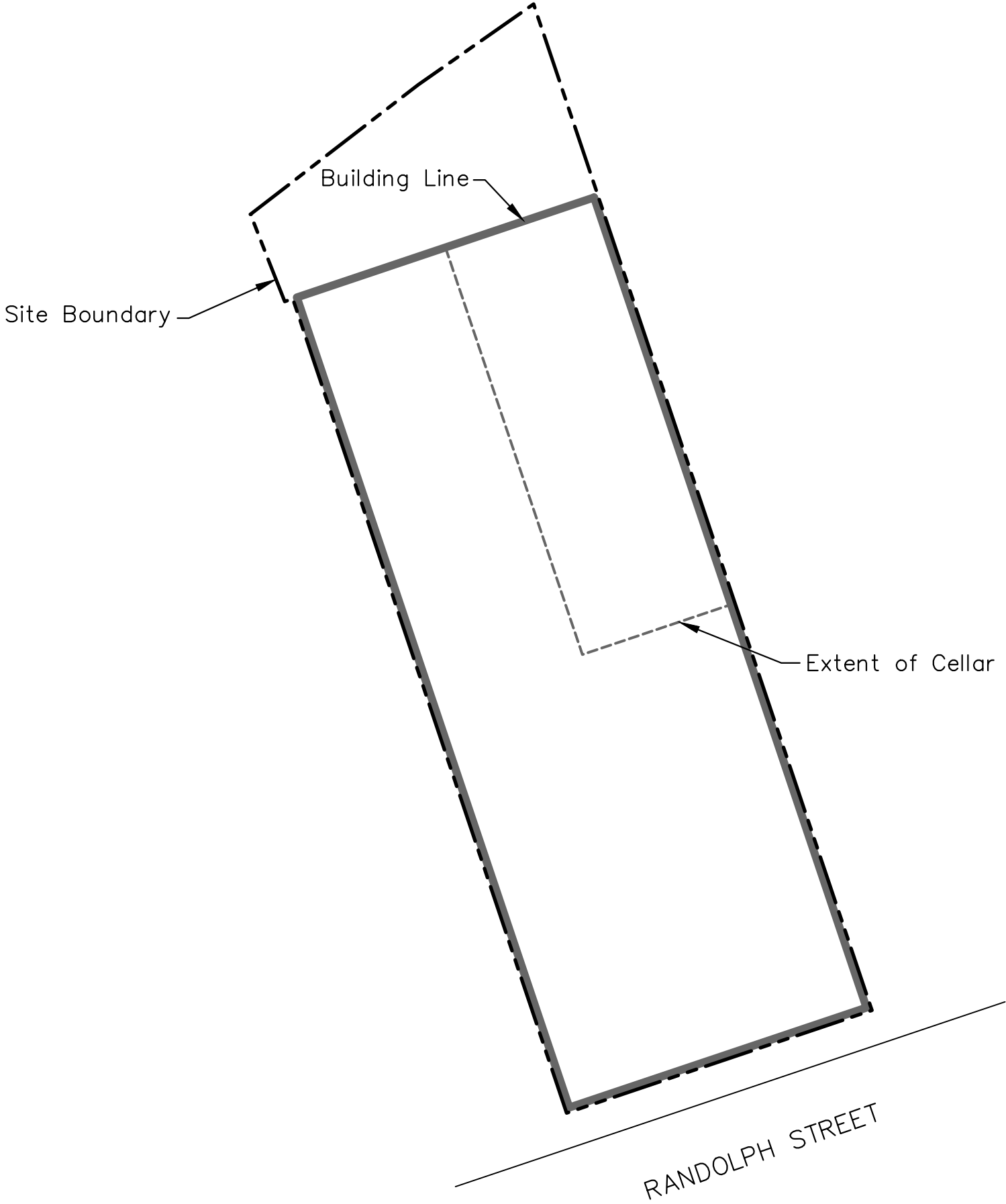
PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

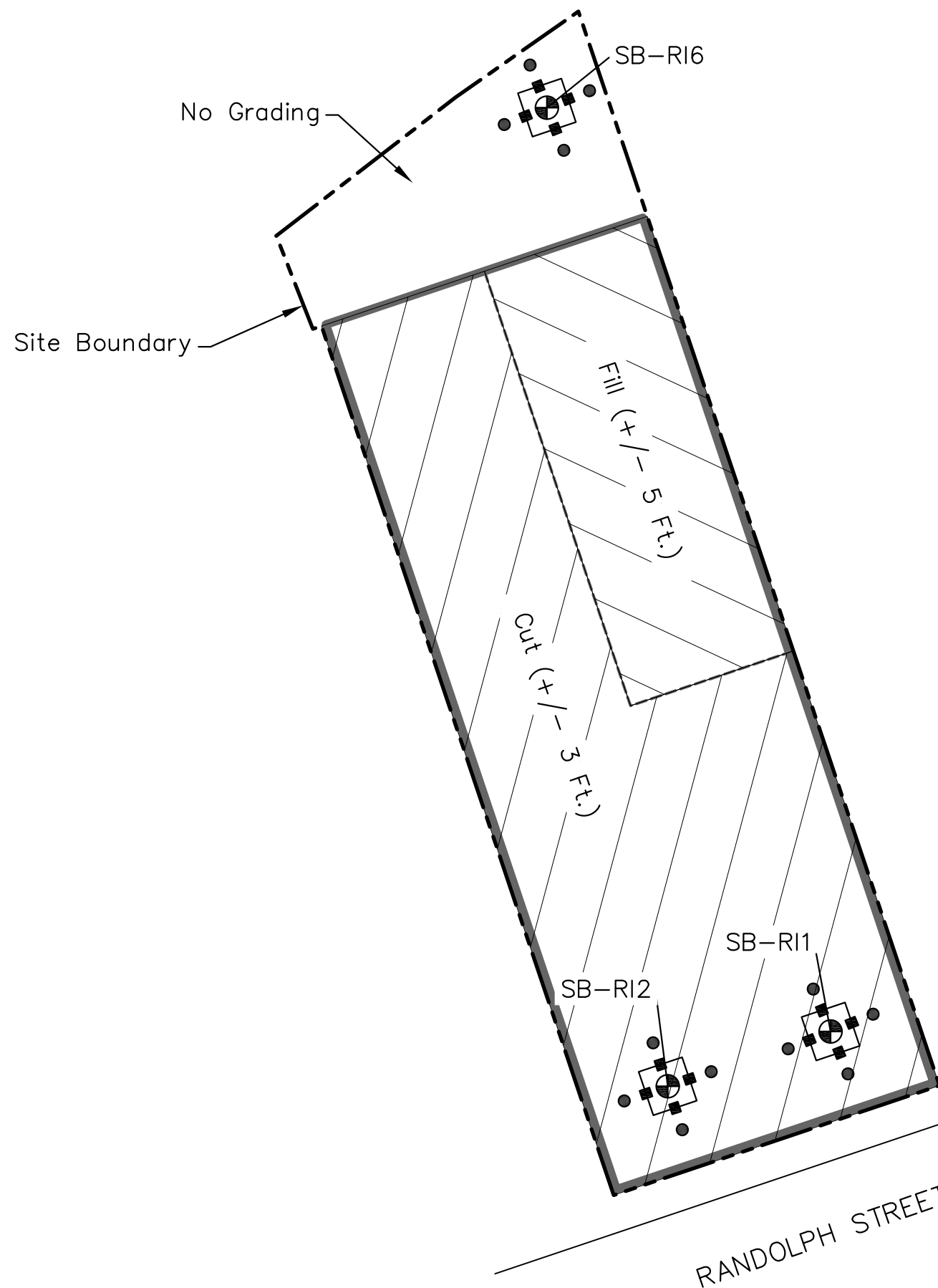
DRAWN BY: KW

CHECKED BY: SAY



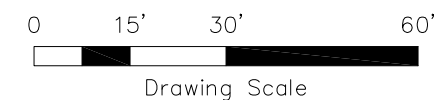


DRAWING TITLE. Site Layout	DRAWN BY LM	CONSULTANT <div>TENENVIRONMENTAL</div> TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379	SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247
	CHECKED BY MC		
	DATE December 2017		
	SCALE: As Noted		
DRAWING NO. Figure 3			

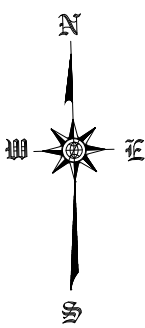
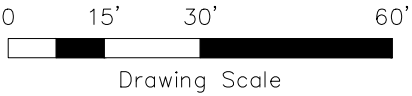
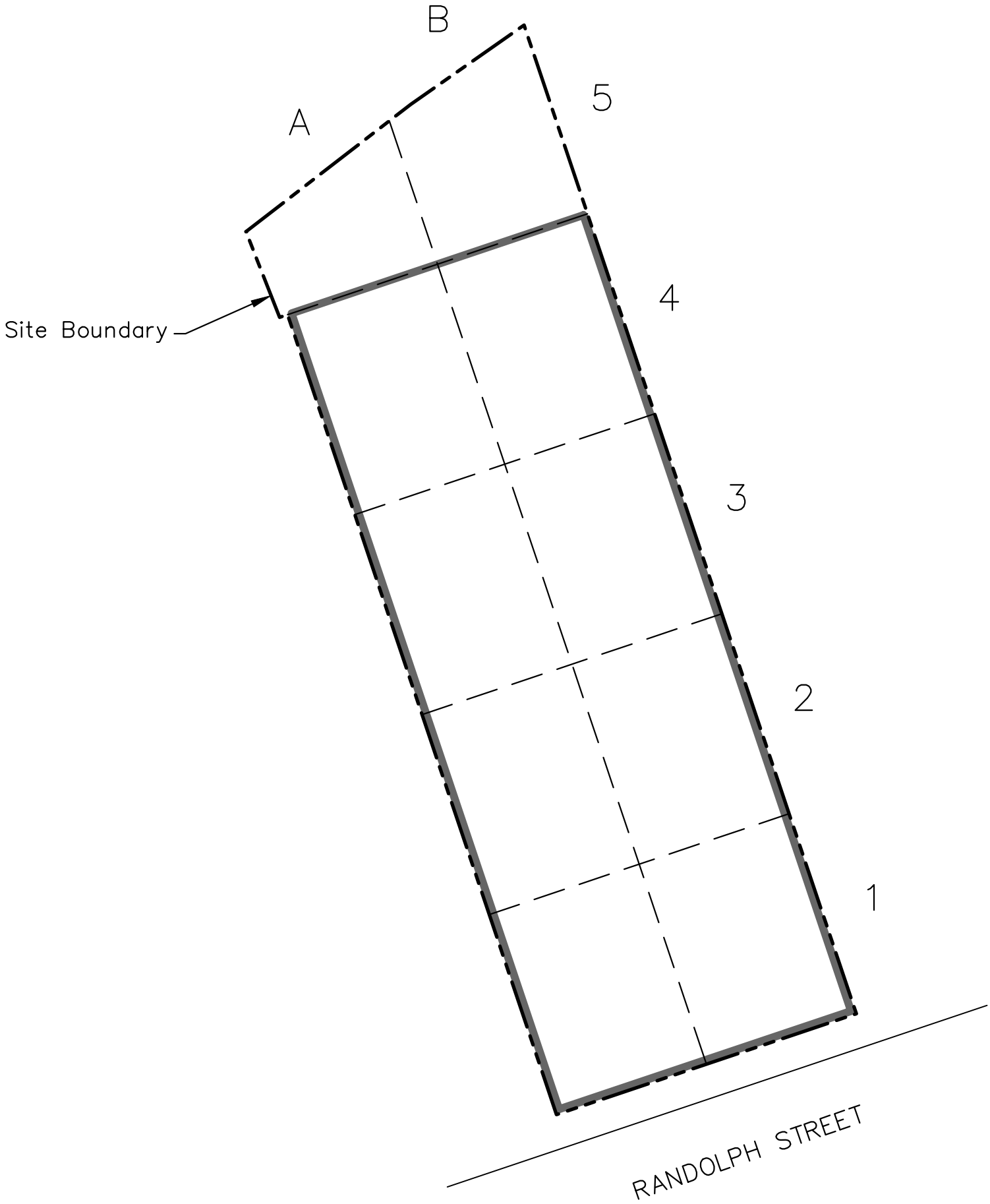


- Legend
- ⊕ Soil Boring Location
 - Hot-spot Excavation

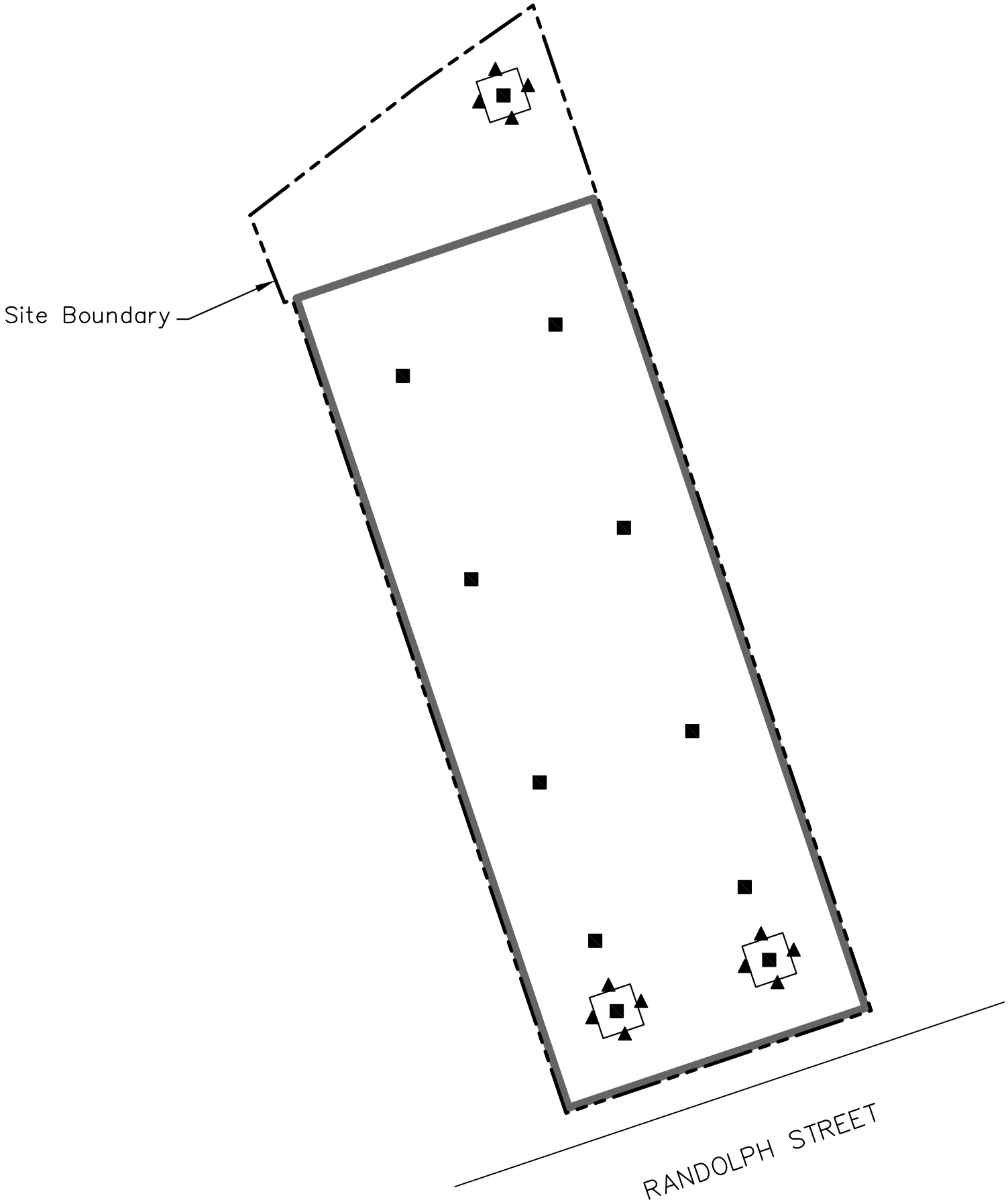
Final extents of hot-spot excavation to be determined by pre-remedy delineation borings shown as: ■ and ●. Min. horizontal extents: 10 ft. x 10 ft. Max. vertical extents: 17 ft. Backfill to meet final grades.



DRAWING TITLE.	Site Excavation Plan	DRAWN BY	LM	CONSULTANT	<div>TENEN ENVIRONMENTAL</div> <div>TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379</div>	SITE
DRAWING NO.	Figure 4	CHECKED BY	MC			
		DATE	December 2017			
		SCALE:	As Noted			



DRAWING TITLE. Alpha Numeric Grid System	DRAWN BY LM		CONSULTANT <div>TENENVIRONMENTAL</div> TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379	SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247
	CHECKED BY MC			
	DATE December 2017			
	SCALE: As Noted			
DRAWING NO. Figure 5				

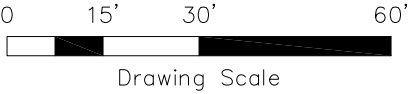


Legend

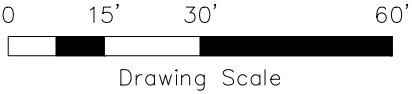
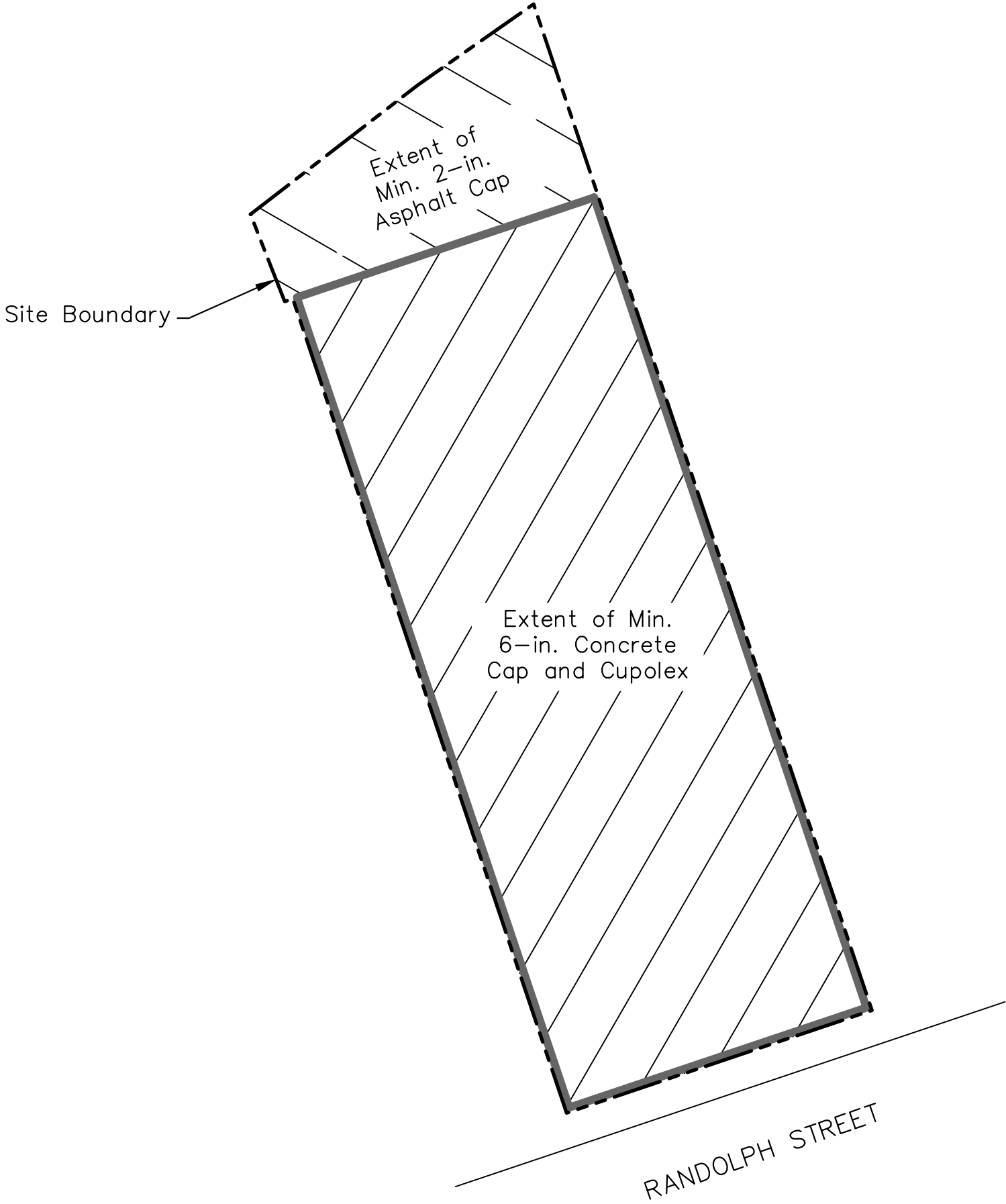
■ Bottom End-point Sample

▲ Sidewall End-point Sample

End-point samples to be analyzed for Part 375 SCOs.



DRAWING TITLE: Post Excavation Sampling Plan	DRAWN BY LM		CONSULTANT <div>TENEN ENVIRONMENTAL</div> TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379	SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247
	CHECKED BY MC			
	DATE December 2017			
	SCALE: As Noted			
	DRAWING NO.			
Figure 6				



DRAWING TITLE: Extents of Composite Cover System		DRAWN BY LM		CONSULTANT <div>TENENVIRONMENTAL</div> TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379		SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247	
DRAWING NO. Figure 7		CHECKED BY MC		DATE December 2017		SCALE: As Noted	

Tables

Table 1
Project Organization and Emergency Contacts
255 Randolph Street - Brooklyn, New York
BCP Site #C224247

Title / Role	Name	Entity	Contact Information
Professional Engineer	Matthew Carroll	--	(646) 827-1061
QEP	Mohamed Ahmed	Tenen Environmental	(646) 606-2332
Owners Representative	Stephen Hix	Edgewater Environmental	(631) 889-1253
Participant	James Juliano	255 Randolph Street Properties	(718) 465-5600
NYSDEC	Richard Mustico	NYSDEC	(518) 402-9647
NYSDOH	Scarlett McLaughlin	NYSDOH	(518) 402-7880
Emergency	Ambulance	FDNY	911

Table 2
Interim Remedial Measures Schedule
255 Randolph Street - Brooklyn, New York
BCP Site #C224247

Task	Duration (days)	Start	End
NYSDEC Approval of IRM Work Plan	--	--	2/1/17
SVE Pilot Test, Submit SVE Design Document	28	2/1/17	2/28/17
NYSDEC Approval of SVE Design Document	45	3/1/17	4/14/17
Mobilization	14	3/1/17	3/14/17
Soil Excavation / Hot-spot Removal / Grading	59	3/15/17	5/12/17
Install SSDS, SVE and Composite Cover System	30	5/13/17	6/11/17
Run SVE System	123	6/12/17	10/12/17
Start-up SSDS System	30	10/13/17	11/11/17
Prepare Construction Completion Report	45	11/12/17	12/26/17

NYSDEC - New York State Department of Environmental Conservation

Appendix A
Community Air Monitoring Plan (CAMP)

**Community Air Monitoring Plan
(CAMP)**

for

255 Randolph Street

Interim Remedial Measures Work Plan

255 Randolph Street,
Brooklyn, New York
BCP Site # C224247

Submitted to:
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
625 Broadway, 12th Floor
Albany, NY 12233-7016

Prepared for:
255 Randolph Street Properties, LLC
213-19 99th Avenue
Queens Village, NY 11429

Prepared by:



121 West 27th Street, Suite 702
New York, NY 10001

December 2017

New York State Department of Health Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring.

If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. A periodic monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors.

Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non- residential settings.

If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m³, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m³ or less at the monitoring point.

Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work with Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals

or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

Appendix B

Health and Safety Plan (HASP)



HEALTH AND SAFETY PLAN

**255 RANDOLPH STREET
BROOKLYN, NEW YORK 11237**

**JUNE 5, 2017
LEA PROJECT # 16-107**

Prepared by:

**Laurel Environmental Associates, Ltd.
53 West Hills Road
Huntington Station New York 11746**

HEALTH AND SAFETY PLAN

PURPOSE

The purpose of this Health and Safety Plan (HASP) is to assign responsibilities, establish the minimum personnel protection standards and operating procedures, and provide for contingencies that may arise while investigations are being performed at the Subject Site, located at 255 Randolph Street, Brooklyn, New York.

Laurel Environmental Associates, Ltd. (LEA) will be responsible for providing materials, equipment, and labor required to fulfill the requirements of the HASP. Albert Kim will be **LEA's** Health and Safety Officer during the investigation. The protocols and requirements of this HASP apply to **LEA** personnel only. Upon request, this HASP will be provided as reference to employees and agents of Contractors, Subcontractors, and Owners, who are required to follow their own HASP requirements.

This HASP establishes the minimum level of personnel protection. Additional measures will be implemented as necessary to protect personnel involved in the work and the public at large.

Based on currently-known Site conditions, the activities to be conducted are not expected to warrant either Level B or Level C personnel protection during the investigation. However, should conditions change and an upgraded becomes necessary, all workers present on site will be familiar with such proper protection procedures.

Given the nature of this investigation, as well as the nature of the contaminants which have the potential of being present on-site, there is very little, if any, potential of the surrounding community being negatively impacted by activities to be conducted during this investigation. However, **LEA** will take every possible step to avoid any type of negative impact.

Based on the scope of work, we do not anticipate the accumulation of drill cuttings. All soils not retained for analysis will be utilized to backfill boreholes.

If an emergency occurs during the investigation, with a potential to impact the surrounding community, all appropriate emergency resources listed under the Emergency Contingency Plan Section of this plan will be immediately mobilized.

HAZARD EVALUATION

Elevated levels of volatile organic compounds (VOCs) in the atmosphere may occur during on-site activities. The presence of VOCs will be evaluated during all intrusive activities (i.e., soil borings) using a Photoionization Detector (PID). PID results will be used to ensure that the appropriate worker protection is maintained for the level of VOCs detected. If air monitoring indicates VOC concentrations pose a risk to workers, the area will be immediately evacuated. Guidelines that will be followed before continuing are noted in Table 1 on the following page. If conditions warrant, Level B and C protection will be implemented.

Table 1
Atmospheric Hazard Guidelines

<u>Hazard</u>	<u>Monitoring Equipment</u>	<u>Measured Level</u>	<u>Action</u>
Explosive Atmosphere	Combustible Gas Indicator	<10% LEL	Continue investigation.
		10%-25% LEL	Continue on-site monitoring with extreme caution as higher levels are encountered.
		>25% LEL	Explosion hazard. Withdraw from area immediately.
Oxygen	Oxygen conc. meter (CGS-20M or MSA 261)	<19.5%	Can continue investigation if wearing self-contained breathing apparatus. NOTE: Combustible gas readings are not valid in atmosphere with oxygen <19.5%.
		19.5% - 25%	Continue investigation with caution.
		>25%	Fire hazard potential. Discontinue investigation. Consult a fire safety specialist.
Organic gases and vapors	PID	Background	Continue investigation.
		5 ppm total organics	Can continue investigation if wearing Level C(2) protection.
		5-500 ppm	Can continue investigation if wearing Level B(3) protection.
Notes:	1.	LEL = Lower Explosive Limit	
	2.	Level C protection outlined in Table 2	
	3.	Level B protection outlined in Table 3	

PERSONAL PROTECTIVE EQUIPMENT

All on-site workers will be familiar with proper protection procedures and this HASP. Level D personal protective clothing will be worn at the outset.

If conditions warrant it, Level B or C protection will be conditions worn. General descriptions of Level C and B protection are presented in Tables 2 and 3, respectively. If it is necessary to wear Level B or C protection, the work area shall be separated into three Zones: Exclusion Zone, Contamination Reduction Zone, and Support Zone. Only protected personnel shall be allowed into the Exclusion and Contamination Reduction Zones. An entrance and exit point shall be designated and monitored to ensure that no unauthorized personnel enter the area. Everyone that enters the area shall be logged in the field note book with the length of time spent in the area and the task performed noted.

All workers shall wear gloves when handling soil/sludge and apparatus. Gloves shall also be worn while cleaning the sampling equipment.

Table 2
LEVEL C PROTECTION

1. Full-face or half-mask, air purifying, canister equipped respirators (NIOSH approved) for those contaminants present.
2. Hooded chemical resistant clothing: (overalls; two-piece Chemical splash-suit; disposable chemical-resistant overalls).
3. Coveralls*
4. Gloves, outer, chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots (outer), chemical-resistant, steel toe and shank.
7. Boot-covers, outer, chemical-resistant, (disposable).*
8. Hard hat.
9. Escape mask.*
10. Two-way radios (worn under outside protective clothing).
11. Face shield.*

*Optional, as applicable.

Table 3

LEVEL B PROTECTION

1. Pressure-demand, full-faceplate self-contained breathing apparatus (SCBA), or pressure-demand supplied air respirator with escape SCBA (NIOSH approved).
2. Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical-resistant overalls).
3. Coveralls.*
4. Gloves, outer chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots, outer, chemical resistant steel toe and shank.
7. Boot-covers, outer, chemical-resistant (disposable).
8. Hard hat.
9. Two-way radios (worn inside encapsulating suit).
10. Face shield.*

* Optional, as applicable

PERSONNEL SAFETY/HYGIENE

The safety practices to be followed by all on-site personnel include:

1. During sample collection activities, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth transfer and ingestion of materials is prohibited
2. Hands and face must be thoroughly washed before eating, drinking, or any other activities.
3. No excessive facial hair, which interferes with a satisfactory fit of the mask to face seal, is allowed for personnel to wear respiratory protective equipment.

PERSONNEL TRAINING

At the start of the job before engaging in any work, all personnel will be briefed on the following:

1. The person in charge as safety officer.
2. Boundaries and entry and exit point locations of the work zones, if established.
3. Use of personnel protection equipment.
4. Principles of personnel hygiene.
5. Location of first-aid equipment.
6. Evacuation procedures to be followed in case of emergencies.
7. Heat stress symptoms. All personnel will be advised to watch for signs of heat stress.

New personnel will be briefed on the same points prior to starting work at the site.

DECONTAMINATION PROCEDURES

If Level B or C protection is worn, decontamination procedures shall be performed in the Contamination Reduction Zone. All disposable garments and spent cartridges/canisters from respiratory equipment will be removed and disposed of in drums.

Potentially contaminated equipment will be cleaned before leaving the site.

EMERGENCY CONTINGENCY PLAN

In the event of physical injury, the safety officer or any other qualified person will initiate first aid and, if necessary, call the ambulance. If a chemical exposure is encountered, a physician will be informed, as specifically as possible, of the chemical(s) to which the person had been exposed and the toxicological properties of the chemical(s).

In case of any emergency, the following resources will be contacted, as warranted based on the specific situation:

A. Local Resource

Fire Department/Ambulance – New York City Fire Department: 911

Police Department: 911

B. Hazardous Waste Spills

New York State Department of Environmental Conservation -800-457-7362

New York City Department of Environmental Protection 1-845-486-3403

C. Hospital

Wyckoff Heights Medical Center
Name

1 (718) 963-7272
Phone

371 Stockholm Street, Brooklyn, NY
Address

Emergency Route to Hospital:

Wyckoff Heights Medical Center

-Head west on Randolph Street 300 feet

-Turn left (south) onto Scott Avenue travel 0.1 mile

-Turn right (west) onto Flushing Avenue travel 0.15 miles

-Turn left Wyckoff Avenue travel 0.38

-Emergence entrance is on the east side of Wyckoff Avenue 20 feet south of Stockholm
Street

HEAT STRESS CASUALTY PREVENTION PLAN

A. Identification and Treatment

1) Heat Exhaustion

Symptoms: Usually begins with muscular weakness, dizziness and a staggering gait. Vomiting is frequent. The bowels may move involuntarily. The victim is very pale, his/her skin is clammy and he/she may perspire profusely. The pulse is weak and fast, breathing is shallow. He/she may faint unless he/she lies down. This may pass, but sometimes it remains and death could occur.

First Aid: Immediately remove the victim to a shady or cool area with good air circulation. Remove all protective outer wear. Call a physician. Treat the victim for shock. (Make him lie down, raise his feet 6-12 inches, and keep him warm but loosen all clothing). If the victim is conscious, it may be helpful to give him sips of a salt water solution (1 teaspoon of salt to 1 glass of water). Transport victim to a medical facility.

2) Heat Stroke

Symptoms: This is the most serious of heat casualties due to the fact that the body excessively overheats. Body temperatures often are between 107-110 F. There is often pain in the head, dizziness, nausea, oppression, and a dryness of the skin and mouth. Unconsciousness follows quickly and death is imminent if exposure continues. The attack will usually occur suddenly.

First-Aid: Immediately evacuate the victim to a cool and shady area. Remove all protective outer wear and all personal clothing. Lay him on his back with the head and shoulders

slightly elevated. It is imperative that the body temperature be lowered immediately. This can be accomplished by applying cold wet towels, ice bags, etc., to the head. Sponge off the bare skin with cool water or rubbing alcohol, if available, or even place him in a tub of cool water. The main objective is to cool him without chilling him. Give no stimulants. Transport the victim to a medical facility as soon as possible.

B. Prevention of Heat Stress

- 1) One of the major causes of heat casualties is the depletion of body fluids. On the site, there will be plenty of fluids available. Personnel should replace water and salts lost from sweating. Salts can be replaced by either a 0.1% salt solution, more heavily salted foods, or commercial mixes, such as Gatorade. The commercial requires are advised for personnel on low sodium diets.
- 2) A work schedule will be established so that the majority of the work day will be during the morning hours of the day before ambient air temperature levels reach their highs if high air temperatures are anticipated.
- 3) A work/rest guideline will be implemented for personnel required to wear Level B protection, if this situation arises. This guideline is as follows:

Ambient Temperatures

Maximum Wearing Time

Above 90°F	1/2 hour
80 - 90°F	1 hour
70 - 80°F	2 hours
60 - 70°F	3 hours
50 - 60°F	4 hours
40 - 50°F	5 hours
30 - 40°F	6 hours
Below 30°F	8 hours

A sufficient period will be allowed for personnel to "cool down". This may require shifts of workers during operations.

Appendix C
Soil/Materials Management Plan (SMMP)

SOIL/MATERIALS MANAGEMENT PLAN

for 255 Randolph Street Interim Remedial Measures Work Plan

255 Randolph Street,
Brooklyn, New York
BCP Site # C224247

Submitted to:
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
625 Broadway, 12th Floor
Albany, NY 12233-7016

Prepared for:
255 Randolph Street Properties, LLC
213-19 99th Avenue
Queens Village, NY 11429

Prepared by:



121 West 27th Street, Suite 702
New York, NY 10001

November 2017

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1.0 INTRODUCTION

This Soil/Materials Management Plan (SMMP) has been developed for the Interim Remedial Measures Work Plan (IRMWP) prepared for 255 Randolph Street (the Site).

The Site, located at 255 Randolph Street, is a rectangular parcel of land located north of Randolph Street between Scott and Seneca Avenues in the heavily industrial East Williamsburg area of Brooklyn.

The Site area is 18,600 square feet (0.43 acre) with 75 feet of frontage along Randolph Street. The Site is occupied by a one-story industrial building with a partial basement. The Site is currently vacant. The Site is located in Brooklyn Community Board 1 and is identified on New York City tax maps as Kings County Block 2979, Lot 45.

1.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed by a qualified environmental professional or experienced field geologist under the supervision of the Remedial Engineer (RE) and will be reported in the Final Engineering Report (FER). Soil Screening will be performed during all remedial and development excavations into known or potentially contaminated material regardless of when the invasive work is done and will include all excavation and invasive work performed during the remedy and during development phase, such as excavations for foundations and utility work, prior to issuance of a COC.

1.2 Soil Staging Methods

Excavated soil from the sub-slab depressurization system (SSDS) pits will be placed in 55-gallon drums. While drums are on-site and work is occurring, they will be inspected daily. All drum management will be compliant with applicable laws and regulations.

1.3 Characterization of Excavated Materials

Soil/fill or other excavated media that is transported off the Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations.

Soils may be re-used on site. Characterization of soil for on-site use will be completed in accordance with the re-use requirements specified by DER-10. Soil proposed for re-use will be screened for indications of contamination by visual means, odor and monitoring with a photoionization detector (PID).

1.4 Materials Excavation, Load-Out and Departure

The RE overseeing the remedial activities, or a qualified environmental professional under his/her supervision, will:

- Oversee remedial work and the excavation and load-out of excavated material;
- Ensure that there is a party responsible for the safe execution of invasive and other work performed under this work plan;
- Ensure that Site development activities and development-related grading cuts will not interfere with, or otherwise impair or compromise the remedial activities proposed in this IRMWP;
- Ensure that the presence of utilities and easements on the Site has been investigated and that any identified risks from work proposed under this IRMWP are properly addressed by appropriate parties;
- Ensure that all loaded outbound trucks are inspected and cleaned if necessary before leaving the Site;
- Ensure that all egress points for truck and equipment transport from the Site will be kept clean of Site-derived materials during Site remediation.

Locations where vehicles exit the Site shall be inspected daily for evidence of soil tracking off premises. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials. Mechanical processing of historical fill and contaminated soil on the Site is prohibited.

1.5 Off-Site Materials Transport

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364.

Trucks leaving the Site will head to Flushing Avenue (local truck route) via Seneca Avenue or Scott Avenue. Trucks will turn right on Flushing Avenue, from which they can access the Brooklyn Queens Expressway (expressway through route) via Flushing Avenue or Morgan Avenue (also a local truck route).

These are the most appropriate routes and take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) limiting total distance to major highways; (d) promoting safety in access to highways; and, (e) overall safety in transport. All trucks loaded with Site materials will exit the vicinity of the Site using only the most-current New York City Department of Transportation (NYCDOT)-approved truck routes (currently the 2015 New York City Truck Route Map).

All trucks loaded with Site materials will travel from the Site using these truck routes. Trucks will not stop or idle in the neighborhood after leaving the project Site.

1.6 Materials Disposal Off-Site

To document that the disposal of regulated material exported from the Site complies with applicable laws and regulations, the following documentation will be established and reported by the RE for each disposal destination used in this project:

- (1) a letter from the RE or Applicant to each disposal facility describing the material to be disposed and requesting written acceptance of the material. This letter will state that material to be disposed is regulated material generated at an environmental remediation Site in New York under a governmental remediation program. The letter will provide the project identity and the name and phone number of the RE or Applicant, and will include as an attachment a summary of all chemical data for the material being transported; and
- (2) a letter from each disposal facility stating it is in receipt of the correspondence, (1) above, and is approved to accept the material.

These documents will be included in the CCR and the FER. The CCR and the FER will include an itemized account of the destination of all material removed from the Site during the remedial action. Documentation associated with disposal of all material will include records and approvals for receipt of the material. This information will be presented in the CCR and the FER.

All soil, fill and other waste excavated and removed from the Site will be managed as regulated material (municipal solid waste per 6NYCRR Part 360-1.2) and will be disposed in accordance with applicable laws and regulations. Historic fill and material that does not meet Track 1 Unrestricted Use soil cleanup objectives (SCOs) is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility). Historic fill and contaminated soils taken off-Site will be handled as solid waste and will not be disposed at a Part 360-16 Registration Facility (also known as a Soil Recycling Facility).

The estimated quantity of soil/fill to be excavated to implement the IRM is approximately 1,750 cubic yards (CY), of which up to approximately 1,000 CY may be proposed for reuse. Final disposal facilities will be identified to NYSDEC prior to shipping material to any facility. Waste characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. Waste characterization sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER. A manifest system for off-Site transportation of exported materials will be employed. Manifest information will be reported in the FER. Hazardous wastes derived from on-Site will be stored, transported and disposed of in compliance with applicable laws and regulations.

All material proposed for reuse in the basement or disposal at a facility with a Part 360 Beneficial Use Determination (BUD) will be sampled for full Part 375 parameters at a frequency of one sample per 250 cubic yards. All reused material will be located under a cap and, consistent with Table 5.4(e)4 of DER-10, must meet the lower of the Part 375 Commercial Use and Protection of Groundwater SCOs. Soil characterization results will be provided to NYSDEC for review and no material will be reused without prior, written approval from NYSDEC.

If disposal of soil and fill from this Site is proposed for unregulated disposal (i.e., clean soil removed for development purposes), including transport to a Part 360-16 Registration Facility, a formal request will be made for approval by NYSDEC with an associated plan compliant with 6NYCRR Part 360-16. This request and plan will include the location, volume and a description of the material to be recycled, including verification that the material is not impacted by site uses and that the material complies with receipt requirements for recycling under 6 NYCRR Part 360. This material will be appropriately handled on-Site to prevent mixing with impacted material.

1.7 Materials Reuse

Soil reuse is proposed within the extents of the basement. Approximately 1,000 cubic yards are estimated for reuse.

1.8 Import of Backfill Soil from Off-Site Sources

Soil is not anticipated to be imported to the Site for use as clean cover. In the event that soil is imported to the Site to act as a clean cover, the soil will be sampled for full Part 375 SCOs in accordance with Table 5.4(e)10 of DER-10 and will only be imported if all analytes meet the lower of the Part 375 Commercial Use and Protection of Groundwater SCOs. Material will not be imported to the Site without prior approval from NYSDEC.

1.9 Fluids Management

Groundwater will not be encountered during implementation of the IRMWP.

1.10 Stormwater Pollution Prevention

All work will be completed in the cellar and stormwater pollution prevention practices are not required.

1.11 Erosion and Sediment Control Measures

All work will be completed in the cellar and erosion and sediment control measures are not required.

1.12 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during excavation. Identification of unknown contamination source areas during invasive Site work will be promptly communicated to the NYSDEC Project Manager. Petroleum spills will be reported to the NYSDEC Spill Hotline. These findings will be included in applicable daily report(s). If previously unidentified contaminant sources are found during on-Site remedial excavation or development-related excavation, sampling will be performed on contaminated source material and surrounding soils

and reported to NYSDEC. Analysis will be performed for Full List volatiles and semi-volatiles, pesticides/PCBs, and TAL metals, as appropriate.

1.13 Odor, Dust and Nuisance Control

A Site-specific Community Air Monitoring Plan (CAMP) is included as Appendix A of the IRMWP. In addition to the community air monitoring, the following protocols will be followed for odor, dust and nuisance control.

Odor Control

All necessary means will be employed to prevent on- and off-Site odor nuisances. If odor complaints are received, immediate measures will be taken and NYSDEC and NYSDOH will be notified as soon as possible. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

Dust Control

Dust management during invasive on-Site work will include, as necessary:

- Use of a dedicated water spray method at suitable supply and pressure for any soil disturbances; and,
- Identification of air intakes on adjoining residential properties.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. Where nuisance dust emissions have developed during remedial work and cannot be corrected, use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices will be considered. NYSDEC will be notified of all dust complaint events. Implementation of all dust controls, including halt of work, will be the responsibility of the RE.

Other Nuisances

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

Appendix D
Citizen Participation Plan (CPP)



NEW YORK
STATE OF
OPPORTUNITY

**Department of
Environmental
Conservation**

Brownfield Cleanup Program

Citizen Participation Plan for 255 Randolph Street

May 2017

BCP Site: C224247
255 Randolph Street
Brooklyn (Kings County), New York 11237

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* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **255 Randolph Street Properties, LLC (“Applicant”)**
Site Name: **255 Randolph Street (“Site”)**
Site Address: **255 Randolph Street, Brooklyn, NY 11237**
Site County: **Kings County**
Site Number: **C224247**

1. What is New York’s Brownfield Cleanup Program?

New York’s Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: <http://www.dec.ny.gov/chemical/8450.html>.

2. Citizen Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision-makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment;
- Improving public access to, and understanding of, issues and information related to a particular site and that site’s investigation and cleanup process;

- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process;
- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community; and
- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision-making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the Site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the Site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods. The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the Site is located;
- Residents, owners, and occupants of the site and properties adjacent to the Site;
- The public water supplier which services the area in which the Site is located;
- Any person who has requested to be placed on the site contact list;

- The administrator of any school or day care facility located on or near the Site for purposes of posting and/or dissemination of information at the facility;
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

Note: The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the Site. See <http://www.dec.ny.gov/chemical/61092.html>.

Subsequent fact sheets about the Site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue during the investigation and cleanup process for some sites, based on public interest and need.

CP Activities

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

Technical Assistance Grant

NYSDEC must determine if the Site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the Site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the Site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the Site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, **the significant threat determination for the site had not yet been made.**

To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at <http://www.dec.ny.gov/regulations/2590.html>

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Activities	Timing of CP Activity(ies)
<p align="center">Application Process:</p> <div> <ul style="list-style-type: none"> • Prepare site contact list • Establish document repository(ies) </div> <div> <ul style="list-style-type: none"> • Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period </div>	
<p align="center">After Execution of Brownfield Site Cleanup Agreement (BCA):</p> <ul style="list-style-type: none"> • Prepare Citizen Participation (CP) Plan 	<p>At time of preparation of application to participate in the BCP.</p> <p>When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.</p> <p>Before start of Remedial Investigation</p> <p>Note: Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.</p>
<p align="center">Before NYSDEC Approves Remedial Investigation (RI) Work Plan:</p> <ul style="list-style-type: none"> • Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period 	<p>Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.</p>
<p align="center">After Applicant Completes Remedial Investigation:</p> <ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes RI results 	<p>Before NYSDEC approves RI Report</p>
<p align="center">Before NYSDEC Approves Remedial Work Plan (RWP):</p> <ul style="list-style-type: none"> • Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period 	<p>Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.</p>
<p align="center">Before Applicant Starts Cleanup Action:</p> <ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes upcoming cleanup action 	<p>Before the start of cleanup action.</p>
<p align="center">After Applicant Completes Cleanup Action:</p> <ul style="list-style-type: none"> • Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report • Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC) 	<p>At the time the cleanup action has been completed.</p> <p>Note: The two fact sheets are combined when possible if there is not a delay in issuing the COC.</p>

3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

No major issues of public concern have been identified during the review of the BCP Application. If issues are identified in the future, this CP Plan will be amended to address any additional CP activities that may need to be implemented.

The Site is located just outside of an Environmental Justice Area. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

Although the Site is located just outside an EJ area, there is a large Hispanic-American population nearby. Therefore, all future fact sheets will be translated into Spanish. In addition, there may be impacts with regards to odor, noise and/or truck traffic.

4. Site Information

Appendix C contains a map identifying the location of the Site.

Site Description

Location: 255 Randolph Street, Brooklyn, NY

.. Located on the north side of Randolph Street near Scott Avenue.

Setting: Industrial (Zoned M3-1)

Site: Approximately 17,740 square feet (sf) with a 15,000-sf warehouse.

Adjacent Properties: The surrounding property uses are industrial on the west, east and south of the Site with New York and Atlantic Railway (NYA) immediately north of the Site. North of the NYA right of way is a solid waste handling facility. There is no residential use within the surrounding area.

Groundwater: Depth to water is approximately 15 feet below grade with groundwater flow to the north.

History of Site Use, Investigation, and Cleanup

Prior and Current Uses:

The Site is currently vacant. The Site was last used for warehousing by an importer of Asian food products, from approximately 2006 until August 2015. According to the City Directory Abstract, the Site was occupied by a sheet metal fabricator in the 1990s. Prior to this, according to Sanborn Fire Insurance Maps, the Site was associated with the manufacture of ammonia for many decades, from at least 1907 to 1985. Sanborn maps from 1933 through 2007 show no indication of production operations within the Site boundaries. However, the 1907 Sanborn map shows the manufacturing facility in a different location on the block, with components of such facility within the footprint of the current Site (acid tank and evaporation pan) or partially within the footprint of the current Site (storage area, grinding and mixing area, acid chambers).

Contaminants Related to the Site:

Based on investigations conducted to date, the primary contaminants of concern for the site include chlorinated solvents [predominantly tetrachloroethylene (PCE) and associated degradation compounds], metals (including arsenic and lead) and Polyaromatic Hydrocarbons (PAHs, including benzo(a)pyrene). The affected media are soil, soil vapor and groundwater.

Soil: Borings taken in June 2016 revealed elevated levels of PCE, Trichloroethylene (TCE), arsenic, lead, and benzo(a)pyrene at the Site, at concentrations exceeding their respective Part 375 Industrial Use soil cleanup objectives (SCOs). Soil samples collected during previous sampling events did not have any concentrations above the Industrial Use SCOs.

Groundwater: Groundwater samples collected in February 2014, April/May 2014 and June 2016, indicate elevated concentrations of PCE and TCE [both with a Class GA Standard of 5 micrograms per liter (µg/L)] at the Site.

Soil Vapor & Indoor Air: An indoor air sample and three sub-slab air samples were taken at the Site during the June 2016 investigation. Elevated levels of PCE and TCE were detected in the indoor air sample and in the sub-slab. Based on comparison of TCE and PCE levels in sub-slab soil vapor and indoor air samples to the New York State Department of Health (NYSDOH) guidance, mitigation would be required.

Previous Environmental Assessments:

The environmental reports prepared for the Site include the following:

- Phase II Subsurface Investigation, 255 Randolph Street, Brooklyn, NY, prepared by Advanced Cleanup Technologies, Inc. (February 21, 2014).
- Draft Environmental Site Summary Report, 255 Randolph Street, Brooklyn, NY, prepared by Edgewater Environmental, Inc. (April – May 2014).

- Draft Remedial Investigation Report, Industrial Property - 255 Randolph Street, Brooklyn, NY, prepared by Laurel Environmental Associates (October 2016).

5. Investigation and Cleanup Process

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a *Participant*. This means that the Applicant was the owner of the Site at the time of the disposal or discharge of contaminants or was otherwise determined by the Department to be potentially liable for the disposal or discharge of the contaminants. The Participant must fully characterize the nature and extent of contamination on-site, as well as the nature and extent of contamination that has migrated from the Site. The Participant also must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the Site and to contamination that has migrated from the Site.

The Applicant in its Application proposes that the Site will be used for restricted commercial purposes.

To achieve this goal, the Applicant will conduct a site investigation to address data gaps in the current findings, followed by remedial activities at the Site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting these activities at the Site.

Investigation

The Applicant has completed a partial site investigation before it entered into the BCP. For the partial investigation, NYSDEC will determine if the data are useable.

The Applicant will conduct an investigation of the site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation workplan, which is subject to public comment.

The site investigation has several goals:

- 1) Define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;
- 2) Identify the source(s) of the contamination;
- 3) Assess the impact of the contamination on public health and the environment; and
- 4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant submits a draft "Remedial Investigation Work Plan" to NYSDEC for review and approval. NYSDEC makes the draft plan available to the public review during a 30-day public comment period. Following the public comment period, the "Remedial Investigation Work Plan" is

approved by NYSDEC and NYSDOH.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the Site poses a significant threat to public health or the environment. If the Site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the Site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

Interim Remedial Measures

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. The IRM will require a 30-day public comment period.

Remedy Selection

When the investigation of the Site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the Site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” (described below) to the Applicant.

or

2. The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site.

When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. NYSDOH concurrence is required prior to the selection and implementation of the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a final engineering report that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the final engineering report. NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the Site after it receives a COC.

Site Management

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the Site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An *institutional control* is a non-physical restriction on use of the Site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the Site suitable for some, but not all uses.

An *engineering control* is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC, in consultation with NYSDOH, determines that it is no longer needed.

**Appendix A -
Project Contacts and Locations of Reports and Information**

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Richard Mustico
Project Manager
NYSDEC
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7015
Tel: 518-402-9647
Email: Richard.mustico1@dec.ny.gov

Thomas V. Panzone, MPA
Citizen Participation Specialist
Office of Communications Services
NYSDEC - Region 2 Office
Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101
Tel: (718) 482-4953
Email: thomas.panzone@dec.ny.gov

New York State Department of Health (NYSDOH):

Scarlett McLaughlin
Project Manager
NYSDOH
Bureau of Env. Exposure Investigation
Empire State Plaza Corning Tower, Rm 1787
Albany, NY 12237
Tel: (518) 402-7880
Email: bee1@health.ny.gov

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

Facility	Address	Phone Number and/or Email Address
Brooklyn Public Library, Bushwick Branch Hours: MON 10:00 AM - 6:00 PM TUE 10:00 AM - 6:00 PM WED 10:00 AM - 8:00 PM THU 1:00 PM - 8:00 PM FRI 10:00 AM - 6:00 PM SAT 10:00 AM - 5:00 PM SUN CLOSED	340 Bushwick Avenue, Brooklyn, NY 11206	718-602-1348
Brooklyn Community Board Brooklyn 1 Hours: Call for Appointment	435 Graham Avenue, Brooklyn, NY, 11211	718-389-0009 bk01@cb.nyc.gov Chairwoman: Dealice Fuller District Manager: Gerald A. Esposito

Appendix B - Site Contact List

Local Elected and Government Officials

Hon. Bill de Blasio
New York City Mayor
City Hall
New York, NY 10007

Hon. Scott Stringer
NYC Comptroller
1 Centre Street
New York, NY 10007

Hon. Letitia James
Public Advocate
1 Centre Street
New York, NY 10007

Hon. Carl Weisbrod
Commissioner, New York City Planning Commission
120 Broadway, 31st Floor
New York, NY 10271

Hon. Eric L. Adams
Brooklyn Borough President
209 Joralemon Street
Brooklyn, NY 11203
718-802-3700

Mr. Gerald A. Esposito, District Manager
Brooklyn Community Board No. 1
435 Graham Avenue
Brooklyn, NY 11211

Dealice Fuller, Chairwoman
Brooklyn Community Board No. 1
435 Graham Avenue
Brooklyn, NY 11211

Ryan Kuonen, Chairman
Environmental Committee
Brooklyn Community Board No. 1
435 Graham Avenue
Brooklyn, NY 11211

Hon. Anthony Reynoso
NYC Councilman
244 Union Avenue
Brooklyn, NY 11211

Hon. Martin Malave Dilan
State Senate District #18
573 Metropolitan Avenue
Brooklyn, NY 11211
718-573-1726

Hon. Maritza Davila
State Assembly District #53
249 Wilson Avenue
Brooklyn, NY 11237
718-443-1205

Hon. Charles Schumer
U.S. Senator
780 Third Avenue, Suite 2301
New York, NY 10017

Hon. Kirsten Gillibrand
U.S. Senator
780 Third Avenue, Suite 2601
New York, NY 10017

Hon. Nydia Velazquez
U.S. House of Representatives
266 Broadway
Brooklyn, NY 11211

Nancy T. Sunshine
Kings County Clerk
Kings County Clerk's Office
360 Adams Street, Room 189
Brooklyn, NY 11201

Dan Walsh, Director
NYC Office of Environmental Remediation
100 Gold Street - 2nd Floor
New York, NY 10038

Julie Stein
Office of Environmental Assessment & Planning
NYC Dept. of Environmental Protection
96-05 Horace Harding Expressway
Flushing, NY 11373

Adjacent Property Owners

Address	Entity	Mailing Address	Tenants
90 Scott Avenue	Scott Avenue Partners, LLC	63-23 Metropolitan Avenue, Middle Village, NY 11375	R Strangs Electrical Contractor
110 Scott Avenue	110 Scott Avenue Properties	110 Scott Avenue, Brooklyn, NY 11237	Kitchen Mart Trading Corp.
269 Randolph Street	April Holdings LLC	55 Mall Drive, Commack NY 11725	White Glove Transportation
--	New York and Atlantic Railway	68-01 Otto Road Glendale, NY 11385	--
114 Scott Avenue	Scott Transfer Properties LLC. C/O Pearl Realty Management LLC	155 Water Street, 3rd floor, Brooklyn NY 11201	--
270 Randolph Street	Romala, Inc.	PO Box 444, Roslyn Heights, NY 11577	ACM Fan King C Iron Works
36 Scott Ave	36 Resources Realty LLC c/o Ying Lin, Esq.	8 Chatham Square, Suite 202, New York, NY 10038	

Local Media Outlets

New York Daily News
4 New York Plaza
New York, NY 10004

El Diario
1 MetroTech Center, 18th Floor
Brooklyn, NY 11201

Hoy Nueva York
1 MetroTech Center, 18th Floor
Brooklyn, NY 11201

NY 1 News
75 Ninth Avenue
New York, NY 10011

New York Post
1211 Avenue of the Americas
New York, NY 10036

Courier-Life Publications
1 Metro-Tech Center North - 10th Floor
Brooklyn, NY 11201

Brooklyn Daily Eagle
16 Court Street, Suite 1208
Brooklyn, NY 11241

The Brooklyn Papers
1 Metrotech Center, Suite 1001
Brooklyn, NY 11201

Schools

Junior High School 162 - The Willoughby
1390 Willoughby Avenue
Brooklyn NY 11237
Attn: Amanda Lazerson, Principal
718-821-4860

Community, Civic, Environmental and Religious Organizations

Antonia Yuille, Director
Consolidated Edison Public Affairs
30 Flatbush Avenue
Brooklyn, NY 11217

Raquel Queme, President
90th NYPD Police Precinct Council
211 Union Avenue
Brooklyn, NY 11211

Engine 237
FDNY
43 Morgan Avenue
Brooklyn, NY 11237

Gowanus Canal Conservancy
P.O. Box 150-652
Brooklyn, NY 11215

The Gowanus Dredgers
P.O. Box 24403
Brooklyn, NY 11202

Friends & Residents of Greater Gowanus
268 Smith Street
Brooklyn, NY 11231
Attn: Marilyn Oliva, Acting Representative

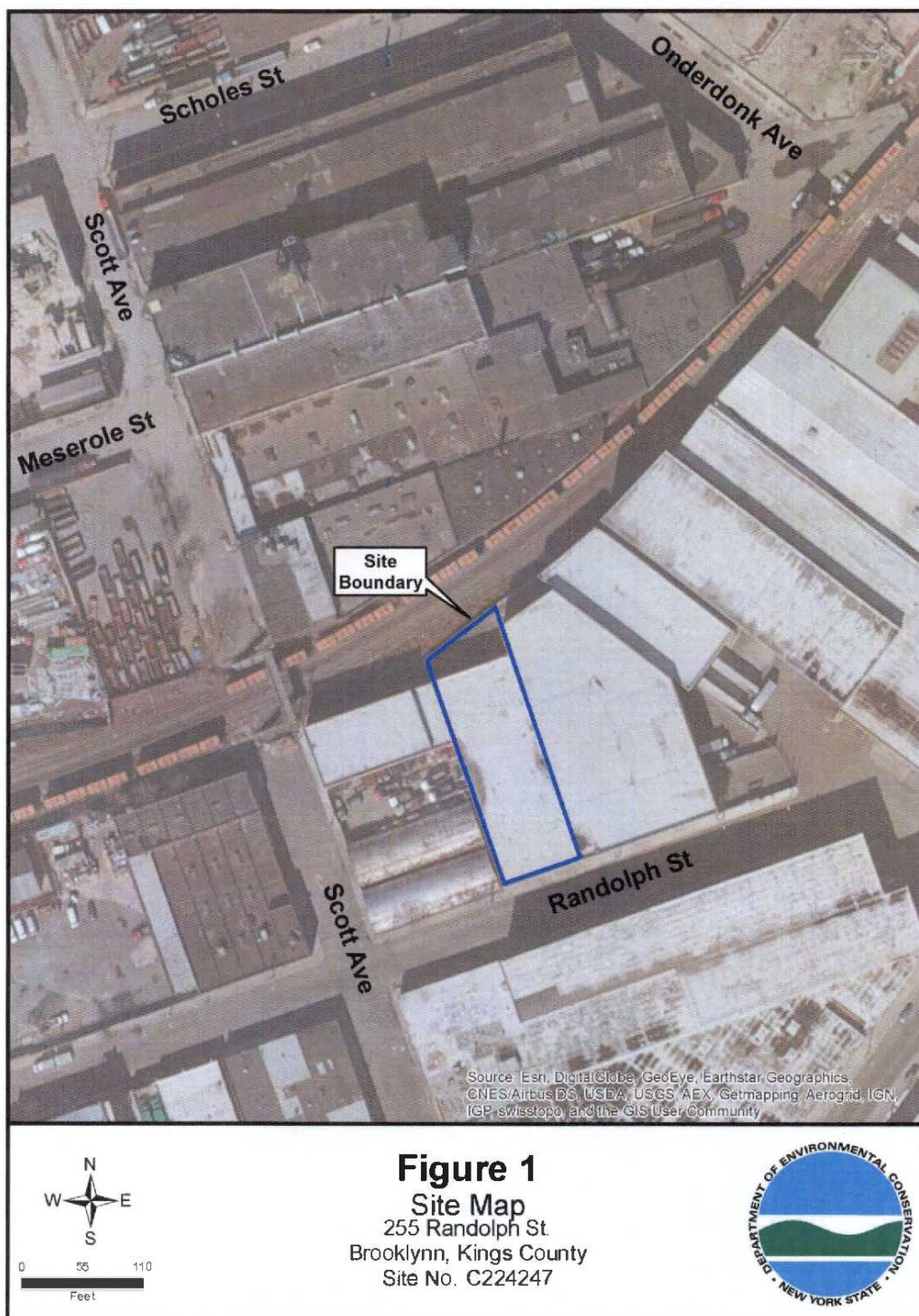
[Gowanus Canal Community Development Corporation](#)

Mike Raccioppo, Executive Director
515 Court Street
Brooklyn, NY 11231

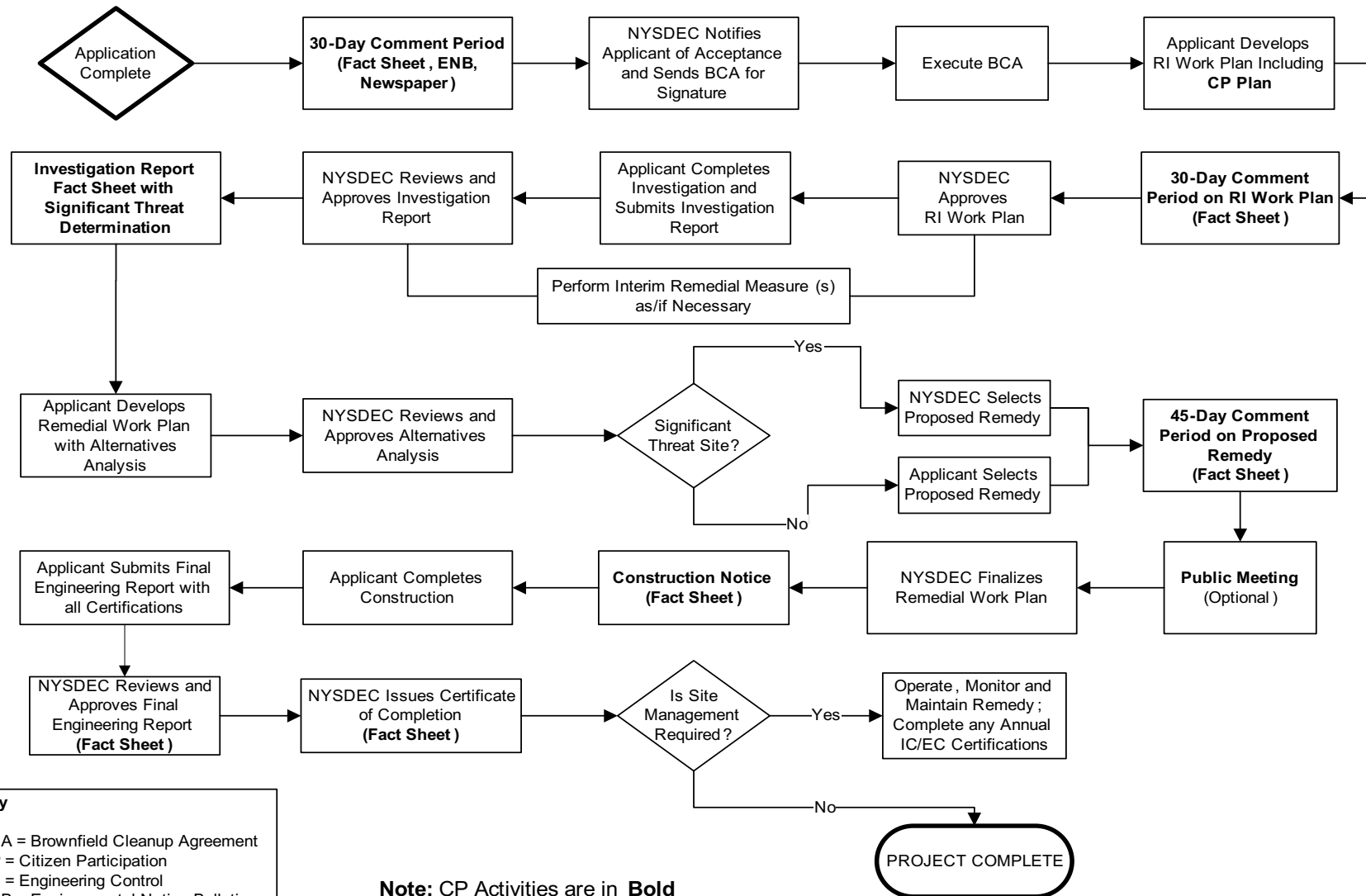
Public Water Supplier

Vincent Sapienza, Acting Commissioner
NYC Department of Environmental Protection
59-17 Junction Boulevard
Flushing, NY 11373

Appendix C - Site Location Map

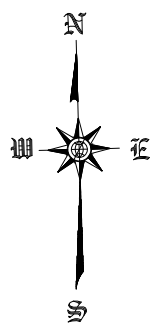
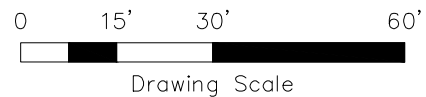
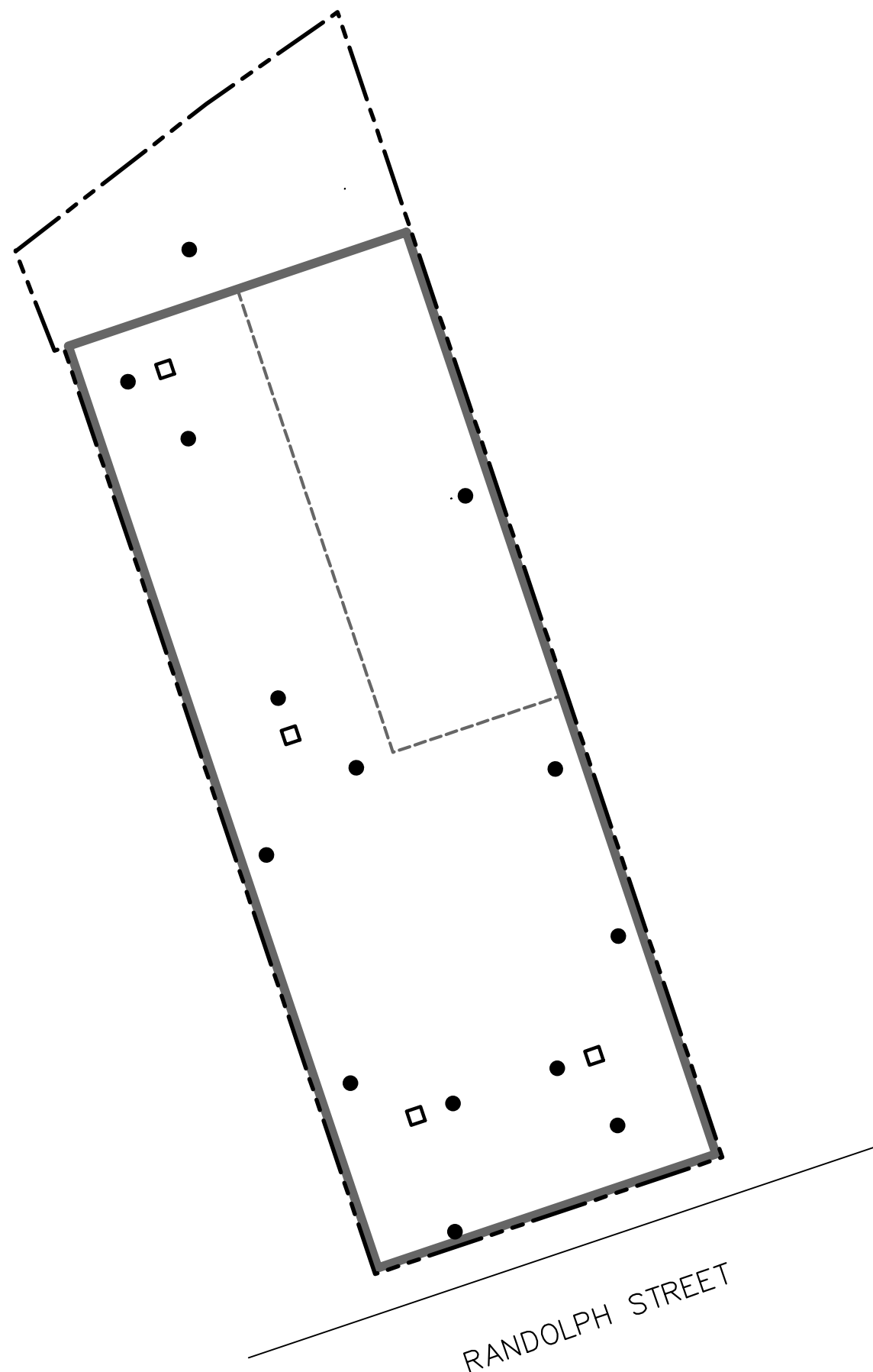


Appendix D– Brownfield Cleanup Program Process



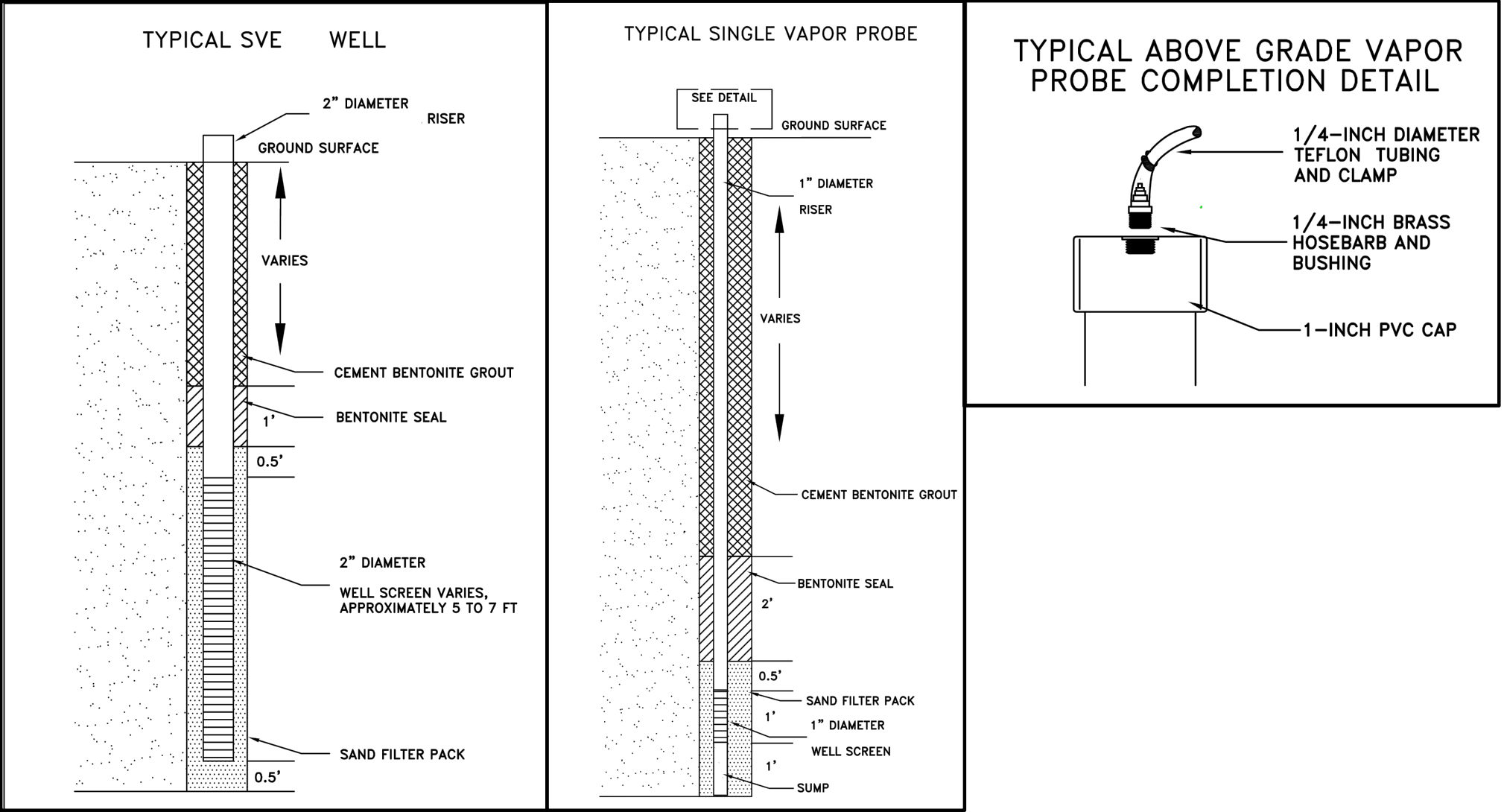
Appendix F

Soil Vapor Extraction (SVE) Design



- Legend
- Vacuum Extraction Well
 - Vapor Monitoring Point

DRAWING TITLE: Soil Vapor Extraction (SVE) Pilot Test Layout		DRAWN BY LM	CONSULTANT <div>TENEN ENVIRONMENTAL</div> TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379	SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247
DRAWING NO. X104		CHECKED BY MC		
		DATE December 2017		
		SCALE: As Noted		



DRAWING TITLE
Soil Vapor Extraction
(SVE) Details

DRAWING NO.
X105

DRAWN BY
LM

CHECKED BY
MC

DATE
July 2017

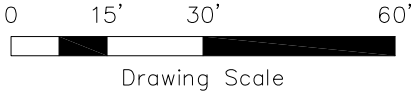
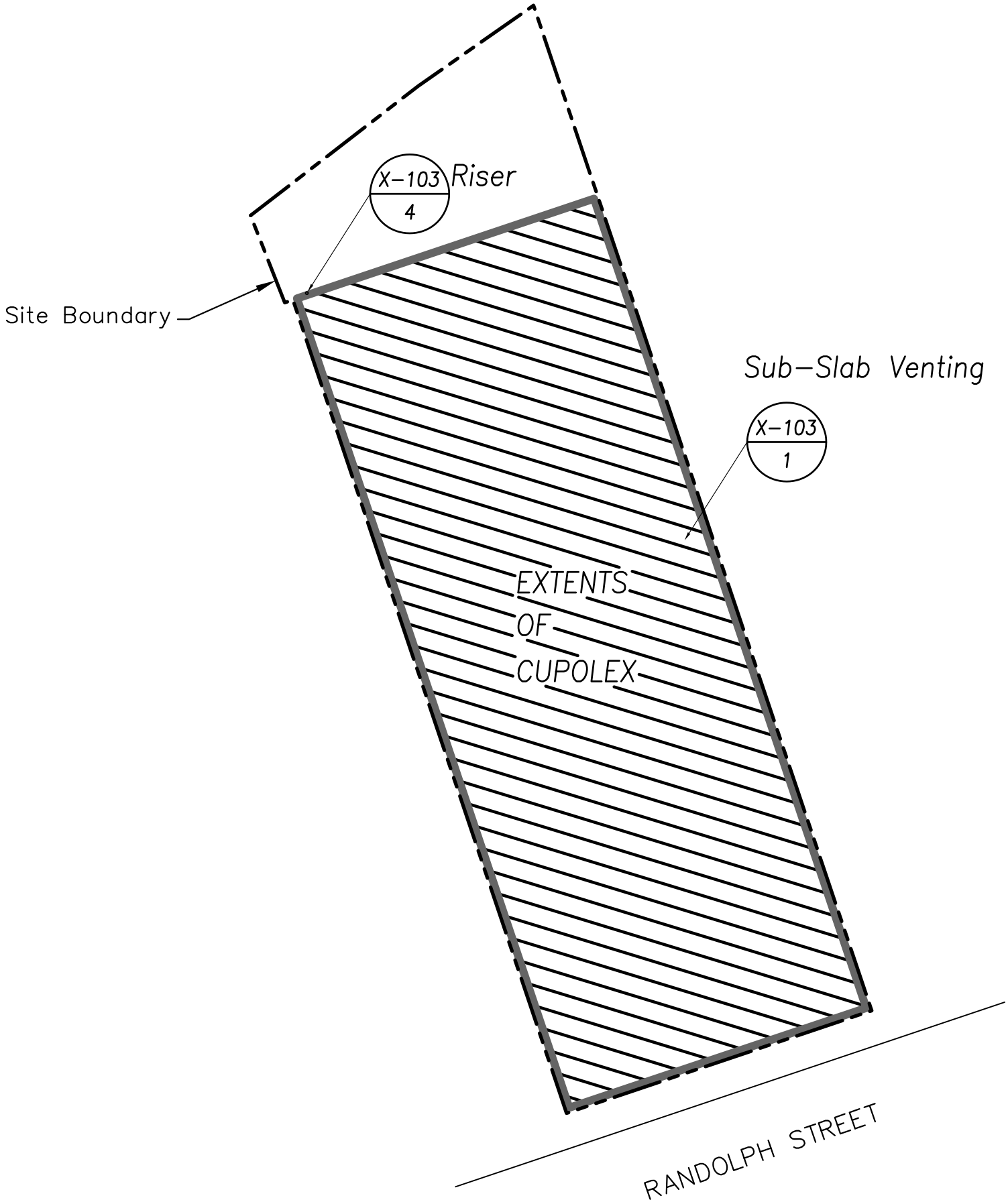
SCALE:
As Noted

CONSULTANT
TENEN ENVIRONMENTAL
TENEN ENVIRONMENTAL, LLC
121 West 27th Street
Suite 702
New York, NY 10001
O: 646-606-2332
F: 646-606-2379

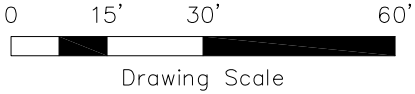
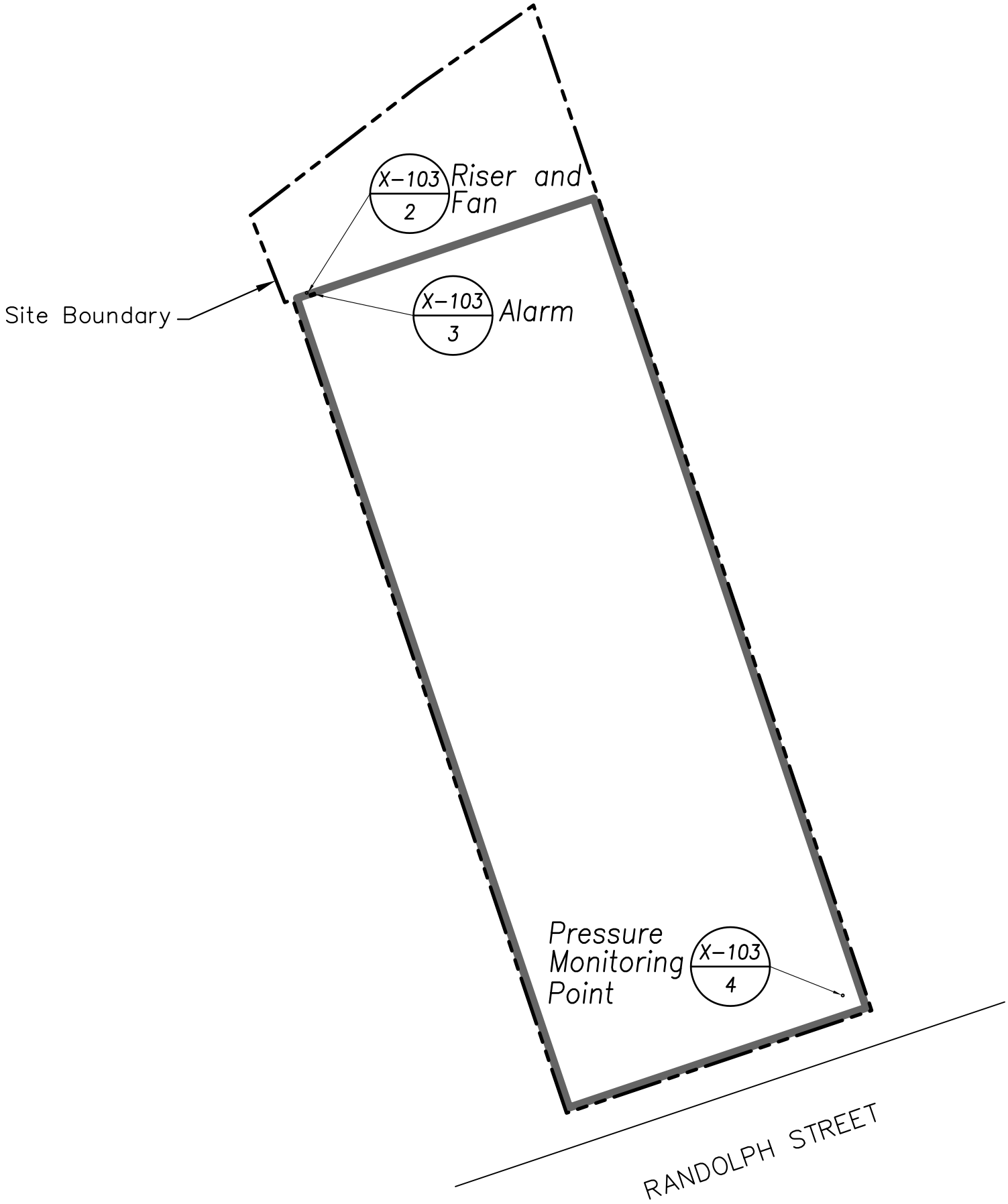
SITE
255 Randolph Street
Brooklyn, New York
Block 2979, Lot 45
BCP Site #C224247

Appendix G

Sub-Slab Depressurization System (SSDS) Design



DRAWING TITLE: SSDS Sub-Grade Layout		DRAWN BY LM	CONSULTANT TENEN ENVIRONMENTAL TENEN ENVIRONMENTAL, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: 646-606-2332 F: 646-606-2379	SITE 255 Randolph Street Brooklyn, New York Block 2979, Lot 45 BCP Site #C224247
DRAWING NO. X-100		CHECKED BY MC		
		DATE December 2017		
		SCALE: As Noted		



DRAWING TITLE:
SSDS First Floor Layout

DRAWING NO.

X-101

DRAWN BY	LM
CHECKED BY	MC
DATE	December 2017
SCALE	As Noted

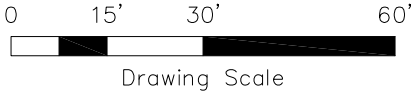
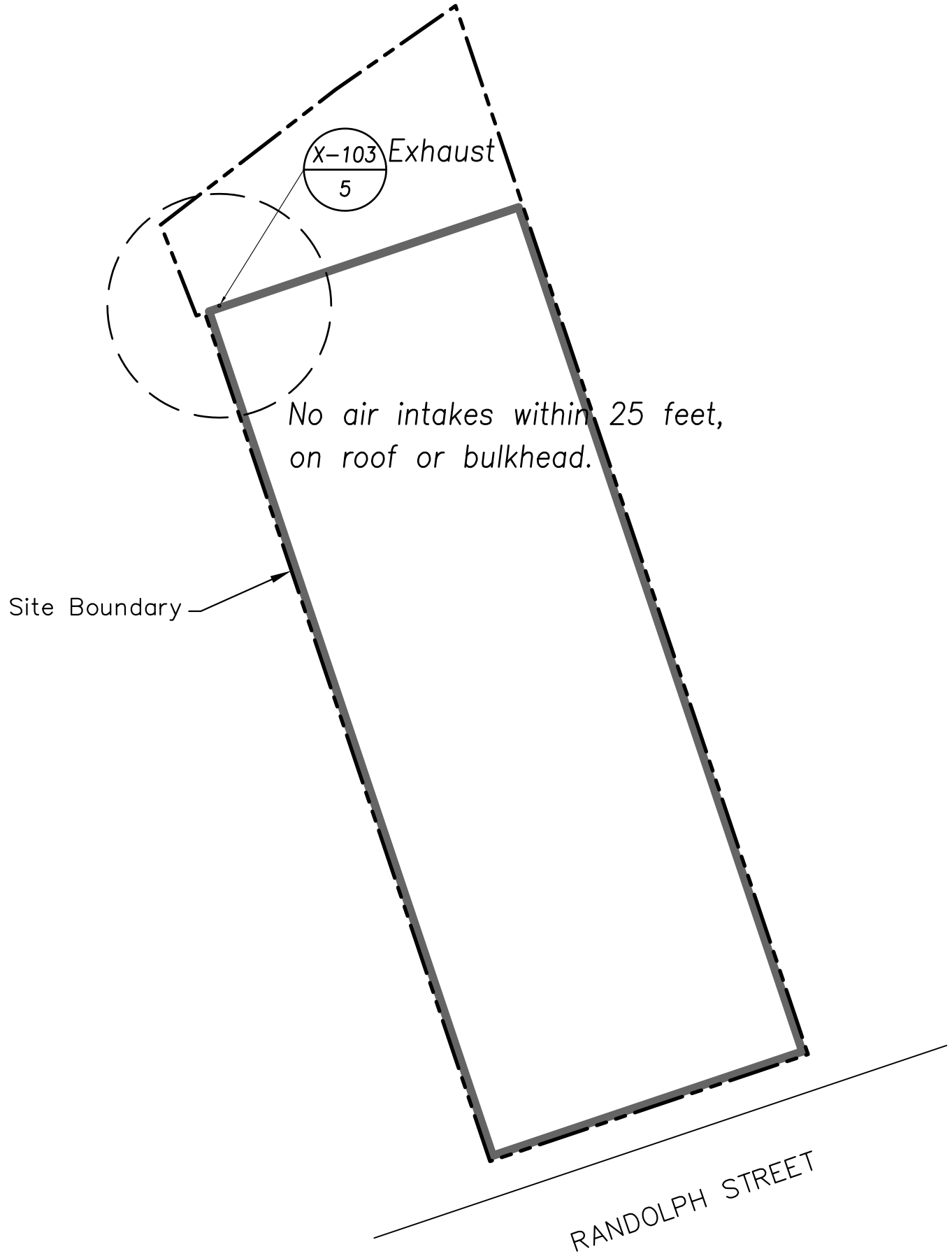
CONSULTANT

TENEN ENVIRONMENTAL

TENEN ENVIRONMENTAL, LLC
121 West 27th Street
Suite 702
New York, NY 10001
O: 646-606-2332
F: 646-606-2379

SITE

255 Randolph Street
Brooklyn, New York
Block 2979, Lot 45
BCP Site #C224247



DRAWING TITLE: SSDS Roof Layout	DRAWN BY LM
	CHECKED BY MC
DRAWING NO. X-102	DATE December 2017
	SCALE: As Noted

CONSULTANT

TENEN ENVIRONMENTAL

TENEN ENVIRONMENTAL, LLC
121 West 27th Street
Suite 702
New York, NY 10001
O: 646-606-2332
F: 646-606-2379

SITE

255 Randolph Street
Brooklyn, New York
Block 2979, Lot 45
BCP Site #C224247

Appendix H
Draft Operations, Maintenance and Monitoring
(OM&M) Plan

OPERATIONS, MAINTENANCE & MONITORING (OM&M) PLAN

SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS)

for 255 Randolph Street Interim Remedial Measures Work Plan

255 Randolph Street,
Brooklyn, New York
BCP Site # C224247

Submitted to:
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
625 Broadway, 12th Floor
Albany, NY 12233-7016

Prepared for:
255 Randolph Street Properties, LLC
213-19 99th Avenue
Queens Village, NY 11429

Prepared by:



121 West 27th Street, Suite 702
New York, NY 10001

December 2017

OPERATIONS, MAINTENANCE AND MONITORING (OM&M) PLAN

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APPENDICES

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Appendix A-1	SSDS Design – As-Built
Appendix A-2	SSDS Operation – Routine Operating Procedures
Appendix A-3	SSDS Vacuum Gauge and Switch – Installation and Operating Instructions
Appendix A-4	SSDS Fan and Motor – Installation and Operating Instructions

OPERATIONS, MAINTENANCE AND MONITORING (OM&M) PLAN

1.0 INTRODUCTION

This Operations, Maintenance and Monitoring (OM&M) Plan has been developed to detail the engineering controls (ECs) implemented as part of the Interim Remedial Measures (IRM) Work Plan prepared for 255 Randolph Street (the Site).

The Site, located at 255 Randolph Street, is a rectangular parcel of land located north of Randolph Street between Scott and Seneca Avenues in the heavily industrial East Williamsburg area of Brooklyn.

The Site area is 18,600 square feet (0.43 acre) with 75 feet of frontage along Randolph Street. The Site is occupied by a one-story industrial building with a partial basement. The Site is currently vacant. The Site is located in Brooklyn Community Board 1 and is identified on New York City tax maps as Kings County Block 2979, Lot 45.

1.1 Background

Environmental investigations at the Site have documented high concentrations of chlorinated solvents in the sub-slab soil vapor. There is the potential for an indoor air intrusion condition.

In order to address the potential for indoor air quality impacts from the sub-slab soil vapor, an active sub-slab depressurization system (SSDS) has been designed and will be incorporated into the current building plan.

1.2 Summary of Engineering Controls (ECs)

Engineering Controls (ECs) to address residual contamination through physical protective measures at the Site have been incorporated to ensure that the Site remains protective of public health and the environment.

A sub-slab depressurization system (SSDS) was installed below the current slab in the basement of the building. The principal components of the SSDS are a Cupolex® concrete forming system. The goal of the system is to create a pressure differential of at least -0.002 inches of water column (in-wc) between the basement and sub-slab environments. A visual and audible alarm have been installed on the first floor to notify the building management if the pressure at the suction fan has dropped below 50% of the start-up pressure. The system was designed in general accordance with NYSDOH's Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 (NYSDOH Soil Vapor Guidance).

2.0 Engineering Control Operations

One permanent EC is being incorporated into the building as part of this IRM Work Plan to address potential soil vapor intrusion at the Site. The EC is:

- an active sub-slab depressurization system (SSDS).

A composite cover system was also installed but is not subject to this OM&M Plan. A determination as to whether the current cover meets the requirements of a cover system under the Brownfield Cleanup Program is being evaluated during the Remedial Investigation for the Site. General design drawings and specifications are included in the Appendices.

2.1 Sub-Slab Depressurization System (SSDS)

The SSDS will reduce the potential for soil vapor migration into the building. The SSDS will be inspected at specific intervals as defined in this OM&M. The system will be tested periodically in accordance with the requirements of Section 3.3.1, SSDS Inspections.w

3.0 Routine Maintenance and Monitoring

EC inspections will be performed by a person knowledgeable with the mechanical systems present in the building and familiar with the property and may include a building or property superintendent.

3.1 EC Inspection Frequency

Site inspection and certification for performance of the active SSDS will be performed on a schedule detailed in the Final Engineering Report (FER) and reported in a Periodic Review Report (PRR).

3.2 EC Inspection Components

The EC inspections will evaluate the following:

- continued performance of ECs as designed;
- compliance with a Site Management Plan (SMP, to be developed);
- continued achievement of remedial performance criteria;
- accuracy and completeness of Site records;
- necessity for any changes to the remedial systems; and
- general Site conditions at the time of inspection.

In the event of an emergency, such as a natural disaster or an unforeseen failure of any of the ECs, an inspection of the ECs will be conducted by a Qualified Environmental Professional (QEP), as defined by NYSDEC. The EC inspection will be conducted in compliance with the SMP (to be developed).

3.3 EC Inspections

3.3.1 Sub-Slab Depressurization System (SSDS)

EC inspections of the SSDS components shall include the following:

- Observe visible components (fan, vacuum alarm/monitor, vacuum gauge, tubing, riser pipe, etc.) for physical wear, damage and operational issues, and replace as necessary;
- Remove any blockages in vacuum monitor and gauge tubing and riser pipe taps;
- Verify operation of vacuum monitor by disconnecting tubing from riser pipe and noting if the building notification system goes into alarm mode;
- Verify operation of vacuum gauge by disconnecting tubing from riser pipe and noting if the indicator moves to zero (check high and low pressure ports to see if they are plugged correctly);
- Inspect riser pipe penetrations in concrete slab for proper seal;
- Inspect riser pipe connections at fan for leaks and tightness;
- Inspect condition of muffler (if installed) at end of outlet pipe; and
- Inspect power to fan by operating dedicated switch.

3.4 Inspection Reporting

EC inspections will be performed by a person with knowledge of the mechanical systems present in the building and familiar with the property. Inspection results will be reported to NYSDEC in a PRR.

3.5 Certifications

The results of the EC inspections will be certified at the time of the inspection and the signed certifications included in the PRR.

The Inspection Certification will certify whether:

- on-site ECs are unchanged from the previous certification;
- on-site ECs remain in-place and effective;
- on-site ECs are performing as designed; and
- anything has occurred that would impair the ability of the controls to protect public health and the environment.

4.0 EMERGENCY CONTACT NUMBERS

In the event of any emergency condition pertaining to any EC, the current Owner's representative(s) should contact the appropriate parties from the contact list below. Prompt contact should also be made to a Qualified Environmental Professional (QEP), as defined by NYSDEC. These emergency contact lists must be maintained in an easily accessible location at the Site.

Emergency Contact Numbers

Contact	Number
Medical, Fire and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Project Contact Numbers

Contact	Number
Matthew Carroll Tenen Environmental	(646) 606-2332

Appendix A

Sub-Slab Depressurization System

DRAFT

Appendix A-1

SSDS Design – As-Built

DRAFT

Appendix A-2

SSDS Operation – Routine Operating Procedures

DRAFT

Sub-Slab Depressurization System (SSDS)

Routine Operating Procedures

The long-term operation and maintenance program described below shall continue throughout the life cycle of the sub-slab depressurization system (SSDS) to ensure a proper working order. The long-term operation and maintenance program for the major SSDS components includes manufacturer's recommendations for the reinstallation of SSDS components if modifications to the existing system need to be made, inspection procedures, an operation schedule, typical routine maintenance activities and schedules, and troubleshooting. Refer to Section 3.3.3 for an overall inspection procedure of the SSDS.

The alarm system, described below, shall run continuously and only be disconnected for routine maintenance and inspection activities or replacement. The system includes the following:

- vacuum gauge/switch, Dwyer Instruments Series ADPS/EDPS Differential Pressure Switch, model ADPS-05-2-N
- alarm system, Edwards Signaling Electronic Horn/Strobe 860 Series, model 867STRC

In case there is a need to relocate the vacuum gauge/switch, the new location shall ensure that the vacuum gauge/switch remains in close proximity to the riser pipe and is installed correctly. If the vacuum gauge is not indicating a vacuum while the SSDS is on, make sure that the tubing connected to the riser pipe is connected to the low pressure port. High pressure ports on the vacuum gauge/switch should be vented to atmosphere.

The vacuum gauge/switch does not require lubrication or periodic servicing. The vacuum gauge is not field serviceable and should be returned to the manufacturer or supplier if repair is needed. Repairs or alterations made to the vacuum gauge/switch by others will void the unit's warranty. The vacuum gauge/switch is factory calibrated and cannot be recalibrated in the field. The installation and operating instructions for the vacuum alarm/monitor have been included in Appendix A-3.

When testing the vacuum alarm/monitor, the tubing that connects the vacuum alarm/monitor to the riser pipe shall be disconnected and the low set point raised above the current reading. If the vacuum alarm/monitor is powered at the time of disconnecting the tubing from the riser pipe, the building system will go into alarm. The building system should go back on-line when the tubing is reconnected to the riser pipe. If the building system is in alarm when there is a vacuum present in the riser pipe, inspect the tubing and riser pipe tap to ensure that there are no blockages. If there is a blockage in either the tubing or the riser pipe tap, remove the blockage and retest the vacuum alarm/monitor.

Common troubleshooting tips that can be followed if the vacuum gauge/switch will not indicate a vacuum or is sluggish include the following:

- The pressure ports (high or low) are not hooked up correctly;

- The fittings or sensing lines are blocked, pinched or leaking;
- The cover is loose;
- The pressure sensor is improperly located;
- The ambient temperature is too low (below 20°C).

The Fantech HP2190 shall operate continuously and only be turned off for routine maintenance and inspection activities or replacement. The SSDS fan and motor shall not be left on the system piping without electrical power for more than 48 hours due to possible fan failure that could result from this non-operational storage. The SSDS fan unit does not require periodic servicing and should be returned to the manufacturer or supplier for service. Repairs or alterations made to the SSDS fan unit by others will void the unit's warranty. The installation and operating instructions for the SSDS fan unit have been included in Appendix A-4.

Appendix A-3

SSDS Vacuum Gauge and Switch – Installation and Operating Instructions

DRAFT

Appendix A-4

SSDS Fan and Motor – Installation and Operating Instructions

DRAFT

Appendix I

Previous Reports



REMEDIATION INVESTIGATION REPORT

**INDUSTRIAL PROPERTY
255 RANDOLPH STREET
BROOKLYN, NEW YORK 11201**

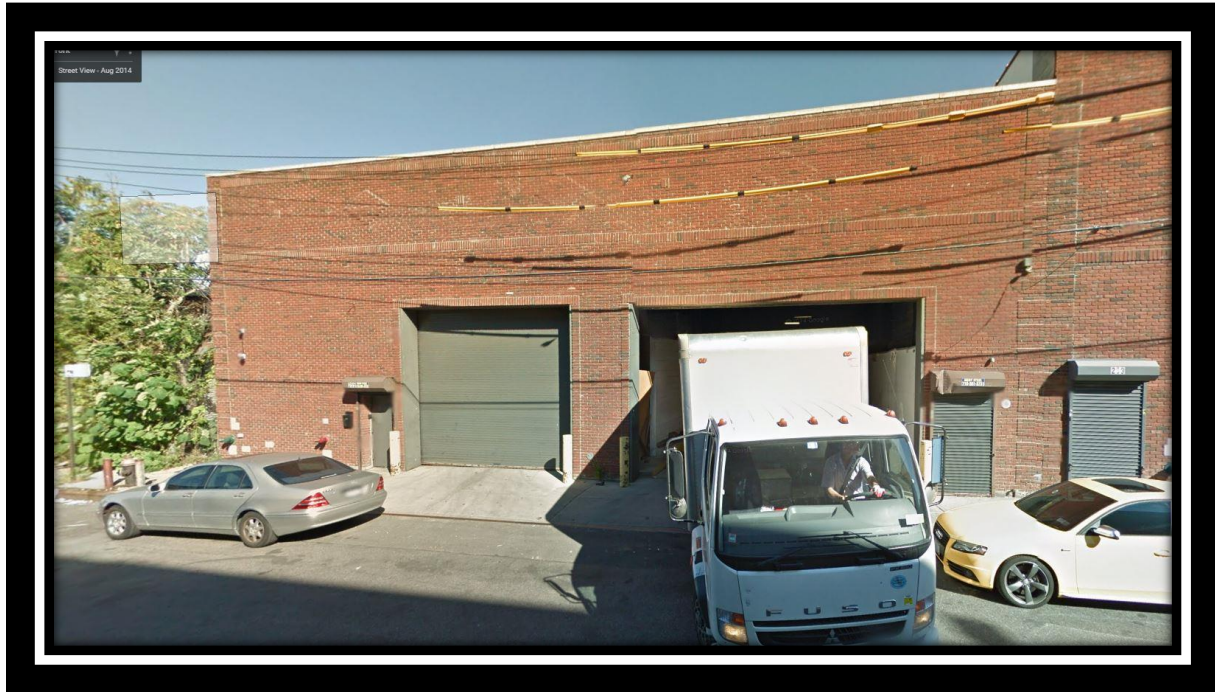
PREPARED FOR:

**255 RANDOLPH STREET PROPERTIES, LLC
213-19 99TH AVENUE
QUEENS VILLAGE, NEW YORK, 11429**

PREPARED BY:

**LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
53 WEST HILLS ROAD, SUITE 1
HUNTINGTON STATION, NEW YORK**

**OCTOBER 18, 2016
LEA PROJECT # 16-203.1**



255 Randolph St, Brooklyn, New York

**LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
ENVIRONMENTAL CERTIFICATION**

LEA Project No.: 16-203.1

Report: Remedial Investigation Report

Field Work Dates: July 14, 15, and 18, 2016


Report Date: October 18, 2016

Site: 255 Randolph Street, Brooklyn, NY, 11201
Located on the north side of Randolph Street, east of Scott Avenue.


Weather Conditions: 90°F, Cloudy with High Humidity

Client: 255 Randolph Street Properties, LLC

Report Prepared By:



Jamie Burgher
Geologist




Kenneth P. Wenz, Jr, QA/QC
Senior Geologist

ENVIRONMENTAL PROFESSIONAL CERTIFICATION

I declare that, to the best of my professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in § 312.10 of 40 Code of Federal Regulations (CFR) 312.

The Environmental Professional who directed this project has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Scott A. Yanuck
Hydrogeologist
Principal

10-18-16
Date

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REPORT SPECIFICATIONS

This report contains (17) pages of text.

Copies and circulation of this report are as follows:

- (1) Electronic copy to 255 Randolph Street Properties, LLC
- (1) Electronic copy to NYSDEC, Ms. Jane O’Connell
- (1) Electronic copy to Tenen Environmental, Mr. Matthew Carrol
- (1) Electronic copy to Edgewater Environmental, Mr. Stephen R. Hix.
- (1) One copy in the confidential client file at ***Laurel Environmental Associates, Ltd.***

This report is prepared for the exclusive use of the principal(s) noted above and is considered private and confidential. ***LEA*** shall not release this report or any of the findings of this report to any person or agency except with the authorization of the named principal(s).

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Laurel Environmental Associates, Ltd. (LEA) was retained by 255 Randolph Street Properties, LLC, to conduct a Remedial Investigation of the industrial property located at 255 Randolph Street, Brooklyn, NY, 11201 (Site, please see Figure 1.0, Site Location). The purpose of this investigation was to sample soil, groundwater, soil vapor, and ambient air, to evaluate environmental conditions at the Site and determine whether, and to what extent, remediation of these media is required.

The map displays the following neighborhoods and areas:

- Greenpoint
- North Side
- South Side
- East Williamsburg (marked with a red star)
- Williamsburg
- Bushwick
- Cypress Hills
- Highland Park
- City Line
- East New York
- Spring Creek
- Starrt City
- Canarsie
- Paerdegat Basin
- Bergen Beach
- Floyd Bennett Field
- Manhattan Beach
- Plum Beach
- Gerritsen Beach
- Marine Park
- Mill Basin
- Flatlands
- Georgetown
- Midwood
- Manhattan Terrace
- Ocean Parkway
- Bensonhurst
- Bath Beach
- Gravesend
- Sheepshead Bay
- Homecrest
- Brighton Beach
- Coney Island
- Sea Gate
- Fort Hamilton
- Bay Ridge
- Sunset Park
- Windsor Terrace
- Prospect Park South
- Ditmas Park
- Flatbush
- East Flatbush
- Kensington
- Borough Park
- Gowanus
- Park Slope
- Botanic Gardens
- Prospect Heights
- Fort Greene
- Clinton Hill
- Bedford Stuyvesant
- Weeksville
- Ocean Hill
- Crown Heights
- Wingate
- Rugby
- Remsen Village
- New Lots
- Brooklyn Heights
- Cobble Hill
- Carroll Gardens
- Red Hook
- Fulton Ferry
- Maner Hill
- Navy Yard
- Downtown

1.1 SITE HISTORY

As summarized in the final draft report titled *Environmental Site Investigation Summary Report, April – May 2014*, prepared by Edgewater Environmental, Inc. (Edgewater), Site occupants have included:

- Robinson Brothers Buffalo Ammonia Company, Inc./Robinson Bros Chemicals/Kings County Chemical Works, from before 1888 until at least 1985; and
- AABCO Sheet Metal/Accurate Specialty Metal Fabricators, from 1992 through 2000.
- Handy Lee Enterprises (food importer warehouse), from 2006 through 2015.

Historic fire insurance maps for the time period between 1888 and 2007 include no references to storage or use of chlorinated solvents at the Site.

1.2 SUMMARY OF PREVIOUS INVESTIGATIONS

According to the February 21, 2014 *Phase II Remedial Investigation*, prepared by Advanced Cleanup Technologies, Inc. (ACT), ACT prepared a Phase I Environmental Site Assessment (ESA) Report for the Site in January 2014, which recommended that a Phase II ESA be conducted at the Site due to its historic industrial use and the suspected presence of a fuel oil underground storage tank (UST). The Phase II ESA field work was conducted on February 10 through 12, 2014, and included a geophysical survey to evaluate the presence and location of the suspect UST (no evidence of the UST was identified at the Site), sampling of four soil borings, and installation and sampling of four temporary groundwater monitoring wells. All four soil samples and two of the groundwater samples (TW-1 and TW-4) were submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and RCRA metals (dissolved metals were analyzed in the groundwater samples). The groundwater samples from TW-2 and TW-3 were analyzed for VOCs only.

Soil sample results were compared to New York State Unrestricted Use Soil Cleanup Objectives (SCOs) and Commercial SCOs, as listed in 6 NYCRR Part 375. The VOC, tetrachloroethylene (PCE) was detected in the soil samples at concentrations above the Commercial SCO in the samples from SB-3 and SB-4. Unrestricted Use SCOs for acetone, trichloroethylene (TCE), cis-1,2-dichloroethene (1,2-DCE), and vinyl chloride (TCE, cis-1,2-DCE, and vinyl chloride are breakdown products of PCE) were exceeded in the sample from SB-3, and the Unrestricted Use SCOs for TCE and 1,1,1-trichloroethane (1,1,1-TCA) were exceeded in the sample from SB-4. In addition, Unrestricted Use SCOs were exceeded for mercury (samples from SB-1, SB-2, and SB-3) and lead (sample from SB-2).

Groundwater results were compared to New York State Class GA groundwater standards, as documented in Technical and Operational Guidance Series (TOGS) memorandum 1.1.1 from the New York State Department of Environmental Conservation (NYSDEC). Class GA standards were exceeded for several VOCs, including PCE (all four samples), TCE (TW-2, TW-3, and TW-4), cis-1,2-DCE (TW-2 and TW-3), trans-1,2-DCE (TW-2 and TW-3), vinyl chloride (TW-2 and TW-3), 1,1,1-TCA (TW-3), 1,1-dichloroethane (TW-3), and chloroform (TW-3).

Based on these results, a follow-up soil and groundwater sampling event was conducted at the Site in April and May 2014. As documented in Edgewater's final draft report titled *Environmental Site Investigation Summary Report, April – May 2014*, the sampling scope included advancing soil borings at four (4) exterior locations (SB-1 through SB-4) and nine (9) interior locations (SB-5 through SB-13). Eighteen soil samples (one to three from each boring) were collected for laboratory analysis of VOCs. In addition, groundwater samples were collected from temporary wells installed at four (4) of the soil boring locations (GW-1 through GW-4).

Three chlorinated VOCs were detected in the soil samples at concentrations that exceeded Unrestricted Use SCOs, including PCE (12 samples), TCE (9 samples), and cis-1,2-DCE (2 samples). These VOCs were also detected in groundwater beneath the Site at concentrations exceeding New York State Class GA Groundwater Standards. Other VOCs that were detected at concentrations exceeding New York State Class GA Groundwater Standards in at least one samples were trans-1,2-DCE, vinyl chloride, 1,1,1-TCA, 1,1-dichloroethane, methylene chloride, and naphthalene.

Sample locations from these previous investigations are shown on Figure 2.0, and analytical results are summarized on Figures 3.0 and 4.0 (soil), and Figure 5.0 (groundwater).

1.3 SAMPLING AND ANALYSIS PLAN

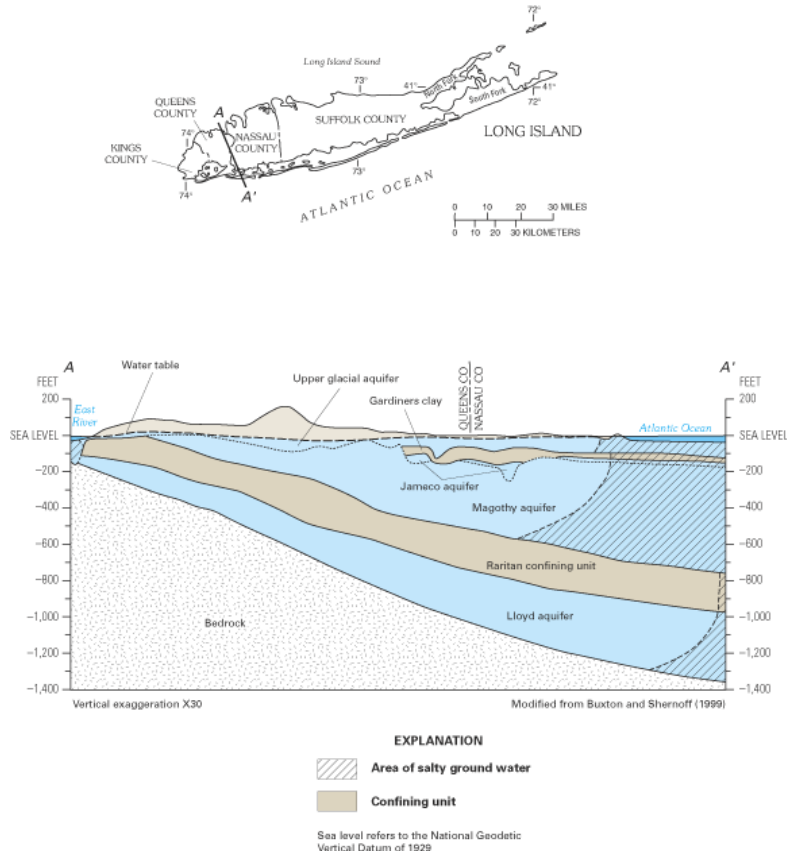
A sampling and analysis program was developed to further assess environmental conditions at the Site. The scope of work for the field investigation included:

- Advance soil borings at six (6) locations. The samples selected for analysis represent 0 – 2 feet below the building slab or ground surface, along with the “worst-case” 2-foot interval from the unsaturated zone within the boring, based on PID readings and field observations, or if no “worst-case” interval was identified, the 2-foot interval immediately above the water table.
 - Soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, hexavalent chromium, cyanide, and pesticides listed in 6 NYCRR Part 375. Sample results were compared to 6 NYCRR Part 375-6.8(b) Protection of Groundwater Soil Cleanup Objectives (SCOs) for VOCs, and 6 NYCRR Part 375-6.8(b) Industrial Use SCOs for non-VOCs.
- Install four (4), 2-inch permanent PVC monitoring wells at a depth of 10 feet below the water table, each with a 10-foot section of screen installed across the water table. Each well was developed, surveyed, and sampled.

- Groundwater samples were analyzed for VOCs, SVOCs, metals (total and dissolved), hexavalent chromium, cyanide, and pesticides. Analytical results were compared to New York State Ambient Groundwater Quality Standards and Guidance Values.
- Installed three (3) permanent sub-slab soil vapor points, and collected three (3) sub-slab soil vapor, two (2) exterior soil vapor samples, one (1) indoor air, and one (1) outdoor ambient air samples at the Site using 6-liter Summa canisters fitted with 6 L/hour flow controllers, designed to collect samples over a 1-hour period.
 - Soil vapor and ambient air samples were analyzed for VOCs using USEPA Method TO-15 and compared to parameters set forth in the NYSDOH Final Guidance for Evaluating Vapor Intrusion in New York State.

2.0 SITE HYDROGEOLOGY

Kings County, New York is located in the Atlantic Coastal Plain physiographic province that is characterized by low hills of unconsolidated sands, gravel and silt. According to Franke (1972), regionally, the near-surface sediments consist of the Upper Glacial deposits that are characterized by southward sloping deposits of sand, gravel and silt. The Upper Glacial deposits have a maximum thickness of 600 feet, and are underlain by the Magothy, Raritan, and Lloyd Formations. The Site overlies the Upper Glacial aquifer. Pump test data suggests hydraulic conductivity between the Magothy and Upper Glacial aquifers. However, discontinuous clay lenses may prevent this interaction in some areas. Public water supplies to New York City residents are obtained from reservoirs in upstate New York.



According to NYSDEC groundwater contour maps, topographic quadrangles prepared by the U. S. Geological Survey, and previous work performed by **LEA** in the area, the Site has an elevation of approximately 17 feet above mean sea level. Regional groundwater is estimated to be 13 feet below ground surface, and the regional flow is to the north, towards Newtown Creek. On July 18, 2016 a site specific hydrogeologic study was conducted to confirm localized on-site groundwater depth and flow direction. Please refer to Section 5.1 for further information.

3.0 SUBSURFACE SOIL INVESTIGATION

3.1 SOIL SAMPLING

On July 14 and 15, 2016, **LEA** staff advanced soil borings at two (2) exterior locations and four (4) interior locations. Sample locations were spaced to assess conditions across the Site. Using a model 6712DT Geoprobe®, soil samples were collected continuously from ground surface to at least twenty (20) feet below ground surface (bgs) at boring locations designated SB-RI1 through SB-RI6. Please refer to Figure 2.0 Site Sketch for soil boring locations.

Two samples were submitted for analysis from each soil boring. All samples recovered from 0 – 2 feet bgs were submitted for laboratory analysis. In addition, the soil samples were field screened using a photoionization detector (PID) and the 2-foot interval of the highest readings within the unsaturated zone was also selected for analysis. If no elevated PID readings were detected, the 2-foot interval immediately above the water table was selected for analysis.

LEA geologists inspected the soil cores to characterize soil stratigraphy and determine the depth to groundwater. Generally, the on-site soils appeared to be brown to tan silty sands with areas of well graded and poorly graded sands. Although the majority of the samples collected showed a PID reading of above 15,000 parts per million, no odors were noted in the samples. Please refer to Appendix E for Soil Boring Logs giving a detailed description.

3.2 LABORATORY ANALYSIS – SOIL BORINGS

A total of twelve (12) soil samples were submitted for laboratory analysis. Sample volumes were placed into appropriate laboratory supplied containers, stored on ice, and delivered via laboratory courier to York Analytical Labs, Inc., for laboratory analysis of 6 NYCRR Part 375 parameters, including VOCs, SVOCs, PCBs, metals, hexavalent chromium, cyanide, and pesticides, with a NYSDEC Analytical Services Protocol (ASP) Category B data package. Laboratory data packages are included in Appendix A and the 6 NYCRR Part 375-6.8(b) Protection of Groundwater and Industrial Use SCOs are included in Appendix B.

Analytical results for soil samples are summarized in Table I, which shows the following:

- Concentrations of several VOCs, including 1,1,1-trichloroethane (1,1,1-TCA), 1,4-dioxane, acetone, cis-1,2-dichloroethene (1,2-DCE), tetrachloroethene (PCE), and trichloroethene (TCE), exceeding Protection of Groundwater SCOs were detected in at least one of the samples collected from each boring. The PCE concentration in SB-RI2 @ 0-2' (and duplicate sample Soil Dup @ 0-2', also from this location) also exceeded the Industrial Use SCO.
- VOCs were detected in the samples from SB-RI4 @ 11'-13', SB-RI5 @ 0-2', and SB-RI6 @ 9-11', but at concentrations below Protection of Groundwater SCOs.
- Concentrations of the SVOC benzo(a)anthracene, exceeding the Industrial Use SCO were detected in two (2) samples, including SB-RI5 @ 10-12' and SB-RI6 @ 9-11'. SVOCs were detected in each of the remaining samples, but at concentrations below Industrial Use SCOs.
- Concentrations of metals exceeding Industrial Use SCOs were detected in three (3) samples, including SB-RI2 @ 0-2', SB-RI3 @ 0-2', and SB-RI6 @ 9-11'. Arsenic concentrations exceeded the Industrial Use SCO in all four (4) samples, and the Industrial Use SCO for lead was exceeded in SB-RI6 @ 9-11'. Metals were detected in each of the remaining samples, but at concentrations below Industrial Use SCOs.
- No exceedances of Industrial Use SCOs for hexavalent chromium, cyanide, PCBs, or pesticides were identified in any of the soil samples.

VOCs detected in soil samples at concentrations above Protection of Groundwater SCOs that were also detected in groundwater beneath the Site are shown on Figure 3.0, and non-VOCs detected in soil samples at concentrations exceeding Industrial Use SCOs are summarized on Figure 4.0.

3.3 WASTE MANAGEMENT

Excess soil generated during soil boring activities was contained in a Department of Transportation (DOT) approved, 55-gallon steel-top drum. The drummed soil was staged at the Site pending characterization and proper disposal.

4.0 GROUNDWATER INVESTIGATION

4.1 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

On July 14 and 15, 2016, using a model 6712DT Geoprobe®, four (4) permanent monitoring wells, designated MW-1 through MW-4, were installed at the Site (well locations are shown on Figure 2.0 Site Sketch). Each monitoring well was constructed using a 10-foot length of 2-inch diameter PVC screen and 2-inch diameter PVC casing. The well screen was placed to straddle the water table, and a clean sand pack was placed around the screen and at least one foot above the top of the screen. A bentonite seal was placed above the sand pack. Each well was completed at ground surface with a locking cap and steel manhole set into concrete. The monitoring wells were developed with a peristaltic pump to remove suspended particulates and establish hydraulic communication with the surrounding formation.

On July 18, 2016, samples were collected via dedicated tubing from each monitoring well, at locations designated MW-1 through MW-4. Prior to groundwater sample acquisition, depth to water (DTW) and depth to bottom (DTB) were measured in each monitoring well using an electronic interface probe. The wells were purged using a check valve, peristaltic pump, and dedicated tubing prior to collection of the sample. Visual and olfactory inspection of the groundwater samples did not indicate the presence of sheen or unusual odors. During purging, groundwater quality was monitored for the following parameters: pH, conductivity, turbidity, temperature, dissolved oxygen, and oxidation/reduction potential. Monitoring logs can be found in Appendix F.

The groundwater samples were collected from the pump discharge and immediately transferred into appropriate laboratory supplied containers, placed on ice, and delivered by laboratory courier to York Analytical Laboratories, Inc. for analysis.

4.2 LABORATORY ANALYSIS - GROUNDWATER

The groundwater samples were analyzed for VOCs, SVOCs, PCBs, metals (total and dissolved), hexavalent chromium, cyanide, and pesticides with a NYSDEC ASP Category B data package. Analytical results were compared against New York State Class GA Groundwater Standards and Guidance Values. Laboratory results can be found in Appendix A and the Class GA Groundwater Standards and Guidance Values are included in Appendix D.

Analytical results for groundwater samples are summarized in Table II, which shows the following:

- Concentrations of VOCs exceeding Class GA Groundwater Standards were detected in all four (4) monitoring wells. VOCs exceeding the standards included 1,1,1-TCA, 1,1-dichloroethane, 1,2-dichloroethane, cis-1,2-DCE, PCE, and TCE.
- SVOCs, PCBs, cyanide, and hexavalent chromium were not detected in any of the groundwater samples at concentrations exceeding Class GA Groundwater Standards.
- The pesticide Dieldrin was detected in MW-3 and a concentration exceeding its Class GA Groundwater Standard.
- Manganese (total and dissolved) was detected in the samples from MW-3 and MW-4 at concentrations exceeding its Class GA Groundwater Standard. Total lead was also detected in the sample from MW-4 at a concentration exceeding the Class GA Groundwater Standard, but the dissolved lead in this sample was well below the standard.

Based on these results, PCE and TCE were identified as the indicator VOCs in groundwater. Analytical results for these parameters are shown on Figure 5.0.

5.0 GROUNDWATER FLOW DIRECTION

On July 18, 2016, **LEA** geologists surveyed the newly-installed monitoring wells at the Site, using an optical level and a stadia rod, to establish the elevations of each of the permanent monitoring wells relative to an arbitrary datum. Using these data and the depth to groundwater measurements gathered during the groundwater investigation, the groundwater elevation within each well was calculated. The elevations were then used to prepare a site-specific groundwater elevation contour map, which is shown on Figure 6.0. As shown on this figure, the groundwater flow at the Site is toward the north.

6.0 SOIL VAPOR INVESTIGATION

The soil vapor investigation was designed to identify assess indoor air and soil vapor quality. The term "vapor intrusion" refers to the process by which volatile chemicals move from a subsurface source into the indoor air of overlying or adjacent buildings. The subsurface source can either be contaminated groundwater or soil which releases vapors into the pore spaces in the soil.

6.1 SOIL VAPOR SAMPLING

On July 14, 2016, **LEA** staff collected three (3) sub-slab soil vapor samples (designated SS-1, SS-2, and SS-3), two (2) soil vapor samples (designated SV-1 and SV-2), one (1) indoor air sample (designated IA-1), and one (1) outdoor ambient air sample (designated OA-1) at the Site. Sample locations are shown on Figure 2.0 Site Sketch. This work was completed before any other testing commenced to eliminate the possibility of cross contamination caused by the sampling of subsurface soil and groundwater.

Samples were collected using 6 Liter Summa canisters fitted with 6 L/hour flow controllers, to collect samples over a 1-hour period. All samples were collected and analyzed in accordance with standard industry practices including purging the line and confirming a tight surface seal using helium prior to sampling, and were submitted to York Analytical Laboratories, Inc. for laboratory analysis. Each sample was evaluated twice, once in its original state and a secondary analysis with a dilution factor.

6.2 LABORATORY ANALYSIS – SOIL VAPOR AND AIR SAMPLES

Samples from the sub-slab soil vapor, soil vapor, indoor air, and outdoor air were submitted for laboratory analysis of VOCs using Method TO-15. Samples were delivered via laboratory courier to York Analytical Labs, Inc., for analysis. Laboratory results can be found in Appendix A and the NYSDOH Soil Vapor/Indoor Air Matrices are included in Appendix C.

Analytical results are summarized in Table III, which shows the following:

- Elevated concentrations of TCE and PCE were detected in each of the soil vapor samples and the indoor air sample. Lower concentrations of TCE and PCE were detected in the outdoor air sample.
- Several other VOCs, including 1,1,1-TCA, 1,1-DCE, carbon tetrachloride, cis-1,2-DCE, and vinyl chloride, were detected at elevated concentrations in most of the soil vapor samples

Figure 7.0 summarizes the analytical results for those VOCs detected at concentrations exceeding NYSDOH indoor air guidance values or for which soil vapor mitigation is recommended by NYSDOH vapor intrusion guidance.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES (QA/QC)

The following sampling QA/QC protocol is in accordance with the United States Environmental Protection Agency (USEPA) accepted sampling procedures for hazardous waste streams [Municipal Research Laboratory, 1980, Sampling and Analysis Procedures for Hazardous Material Waste Streams, Office of Emergency and Remedial Response, Cincinnati, Ohio. EPA-600/280-018] and American Society of Testing and Material's (ASTM's) Sampling Procedures.

7.1 SAMPLING PERSONNEL

The activities associated with the survey, sampling and analysis plan were performed by or under the auspices of a USEPA Office of Emergency and Remedial Response, Certified Sampler for Hazardous Materials. The sample staff (samplers) possessed a minimum of a B.A. Degree in the Earth, Environmental, or Biological Sciences or a B.S. Degree in Engineering. Samplers have a minimum of one-year experience in environmental/geological field work. Additionally, all samplers had received mandatory forty-hour Occupational Safety and Health Administration (OSHA) training on working with potentially hazardous materials and appropriate Hazard Communication Program and "Right-To-Know" training.

7.2 SAMPLING EQUIPMENT

Separate QA/QC measures were implemented for each of the instruments used in the performance of the SAP.

7.2.1 Photoionization Detector

Calibration of the Photoionization Detector (PID) was conducted prior to sampling using a span gas of known concentration. The PID was a *RAE Systems MiniRae 2000*, photo ionization detection meter equipped with a 10.6 eV bulb.

7.2.2 Sample Vessels

All sample vessels were "Level A" certified decontaminated containers supplied by a New York State Certified Commercial Laboratory. Samples analyzed for hydrocarbons were placed in containers with Teflon lined caps. All samples were preserved by cooling them to a temperature of approximately four degrees Celsius.

7.3 SAMPLE DOCUMENTATION

A sample represents physical evidence. An essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of custody procedures were followed.

7.3.1 Sample Identification

Sample identification was executed by use of a sample tag, log book, and chain-of-custody form. Said documentation provided the following information: 1) the project code; 2) the sample laboratory number; 3) the sample preservation; 4) instrument used for source sample grabs; 5) the composite medium used for source sample grabs; 6) the date the sample was secured from the source media; 7) the time the sample was secured from the source media; and 8) the person who secured the sample from the source media.

7.3.2 Chain-of-Custody Procedures

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if it: was in a person's possession; was in a person's view, after being in possession; was in a person's possession and they locked it up; or, was in a designated secure area. When transferring custody, the individuals relinquishing and receiving the samples signed, dated, and noted the time on the Chain-of-Custody Form.

7.3.3 Laboratory-Custody Procedures

A designated sample custodian accepted custody of the shipped samples and verified that the information on the sample tags matched that on the Chain-of-Custody Records. Pertinent information as to shipment, pick-up, courier, etc., were entered in the "remarks" section. The custodian entered the sample tag data into a bound logbook. The laboratory custodian used the sample tag number, or assigned a unique laboratory number to each sample tag, and assured that all samples were transferred to the proper analyst or stored in the appropriate source area. The laboratory custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples, from the time they were received, until the sample was exhausted or returned to the sample custodian. All identifying data sheets and laboratory records were retained as part of the permanent documentation. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

7.4 DATA VALIDATION

The ASP Category B data packages are currently under review by Data Validation Services, an independent data validator, and a Data Usability Summary Report (DUSR) will be prepared for each data package. When completed, the DUSRs will be provided under separate cover.

8.0 INVESTIGATION SUMMARY AND CONCLUSIONS

Based on the results of this Remedial Investigation, *Laurel Environmental Associates, Ltd.* has found the following:

Subsurface Soil Investigation:

1. Soil borings were advanced at six (6) locations throughout the Site, and two samples were submitted for analysis from each soil boring location, designated SB-RI1 through SB-RI6. The samples recovered from 0' – 2' below ground surface were selected for laboratory analysis, in addition to the “worst-case” 2-foot interval within the unsaturated zone or the 2-foot interval immediately above the water table.
2. Elevated levels of several VOCs, SVOCs, and metals were detected at every soil boring location, above their respective Protection of Groundwater or Industrial Use SCOs (as summarized on Figures 3.0 and 4.0). The highest levels of contamination were generally found at shallow depths.

Groundwater Investigation:

1. Groundwater samples were collected from four (4) permanent monitoring wells installed at the Site during this investigation. Samples were collected via dedicated tubing from each monitoring well, at locations designated MW-1 through MW-4.
2. Several VOCs were detected in every groundwater sample at concentrations exceeding Class GA Groundwater Standards. In addition, Class GA Groundwater Standards were exceeded for the pesticide dieldrin, manganese (total and dissolved), and lead (total only) in the groundwater samples from MW-3 and MW-4. Analytical results are summarized on Figure 5.0 and groundwater elevations contours are presented in Figure 6.0, with a flow direction to the north.

Soil Vapor Investigation:

1. Elevated levels of PCE and TCE were detected in the indoor air sample. Lower concentrations of PCE and TCE were detected in the outdoor air sample.
2. The highest sub-slab contamination of PCE, from SS-1 at 5,694,898 $\mu\text{g}/\text{m}^3$, is significantly above the NYSDOH Soil Vapor/Indoor Air Matrices limits of 100 $\mu\text{g}/\text{m}^3$. This indicates the likely entrance of vapor from sub-slab contamination into the building. Based on comparison of TCE and PCE levels in soil vapor and indoor air samples to NYSDOH guidance, mitigation would be required. Analytical results are summarized on Figure 7.0.
3. Several other VOCs were found at elevated concentrations in the sub-slab and soil vapor samples

DISCLAIMER FOR PHASE II ENVIRONMENTAL SITE ASSESSMENT

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client.

In preparing this report, Laurel Environmental Associates, Ltd. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Laurel Environmental Associates, Ltd. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, Laurel Environmental Associates, Ltd. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, Laurel Environmental Associates, Ltd. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to non-hazardous or hazardous materials, in that portion of the subject property or structure. In addition, Laurel Environmental Associates, Ltd. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floor, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

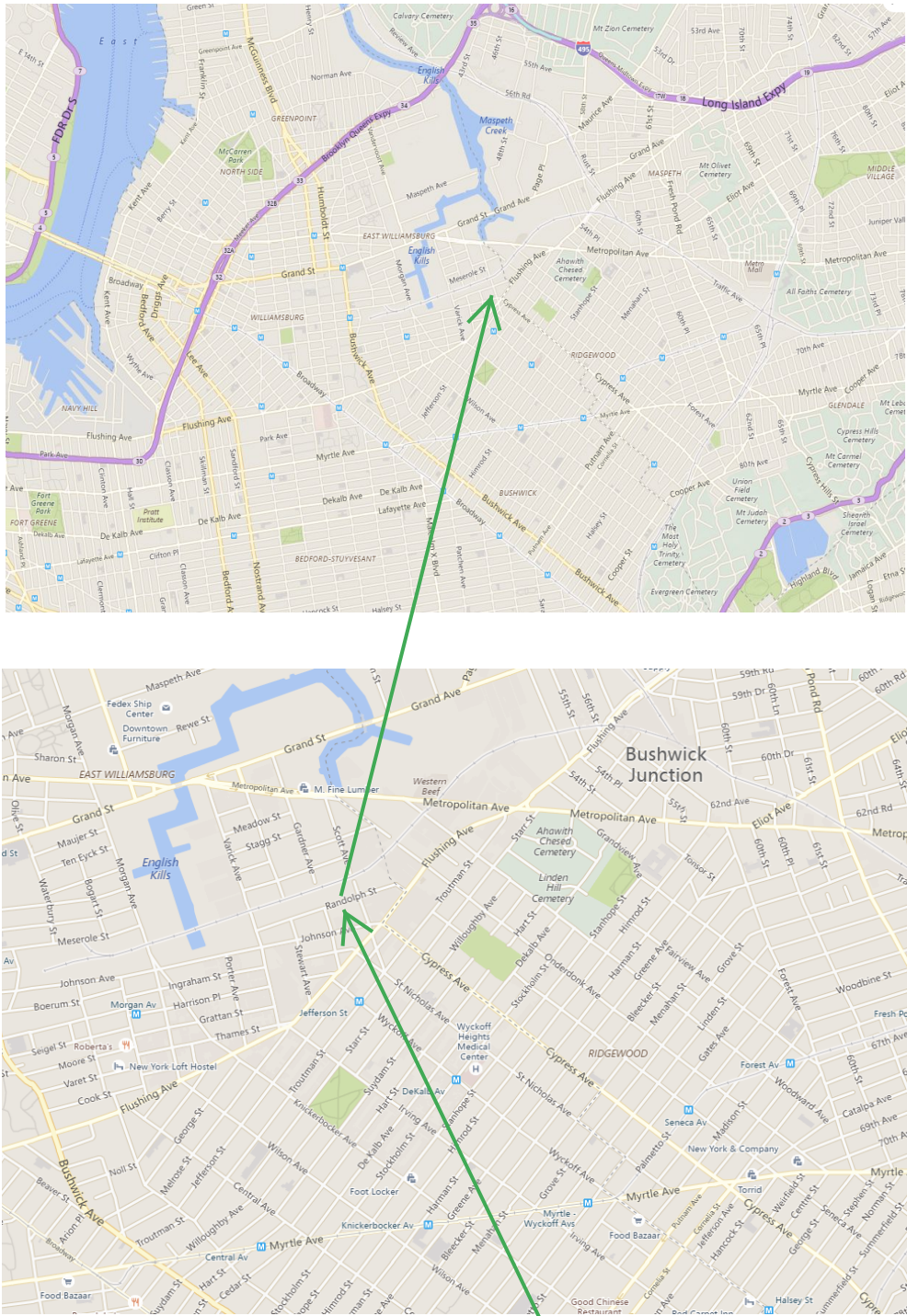
Laurel Environmental Associates, Ltd. did not perform testing or analyses to determine the presence or concentration of asbestos at the subject property or in the environment of the subject property under the scope of the services performed. The conclusions and recommendations contained in this report are based in part, where noted, upon the data obtained from a limited number of soil and groundwater samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

Any water level readings made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory has conducted such analyses, Laurel Environmental Associates, Ltd. has relied upon the data provided, and has not conducted an independent evaluation of the reliability of the data.

The conclusions and recommendations contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly.

Chemical analyses have been performed for specific constituents during the course of this subject property assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study might be present in soil and/or groundwater at the subject property.



LEA, 53 West Hills Road, Suite 1, Huntington Station, New York 11746

Figure 1.0 Site Location
255 Randolph Street
Brooklyn, New York

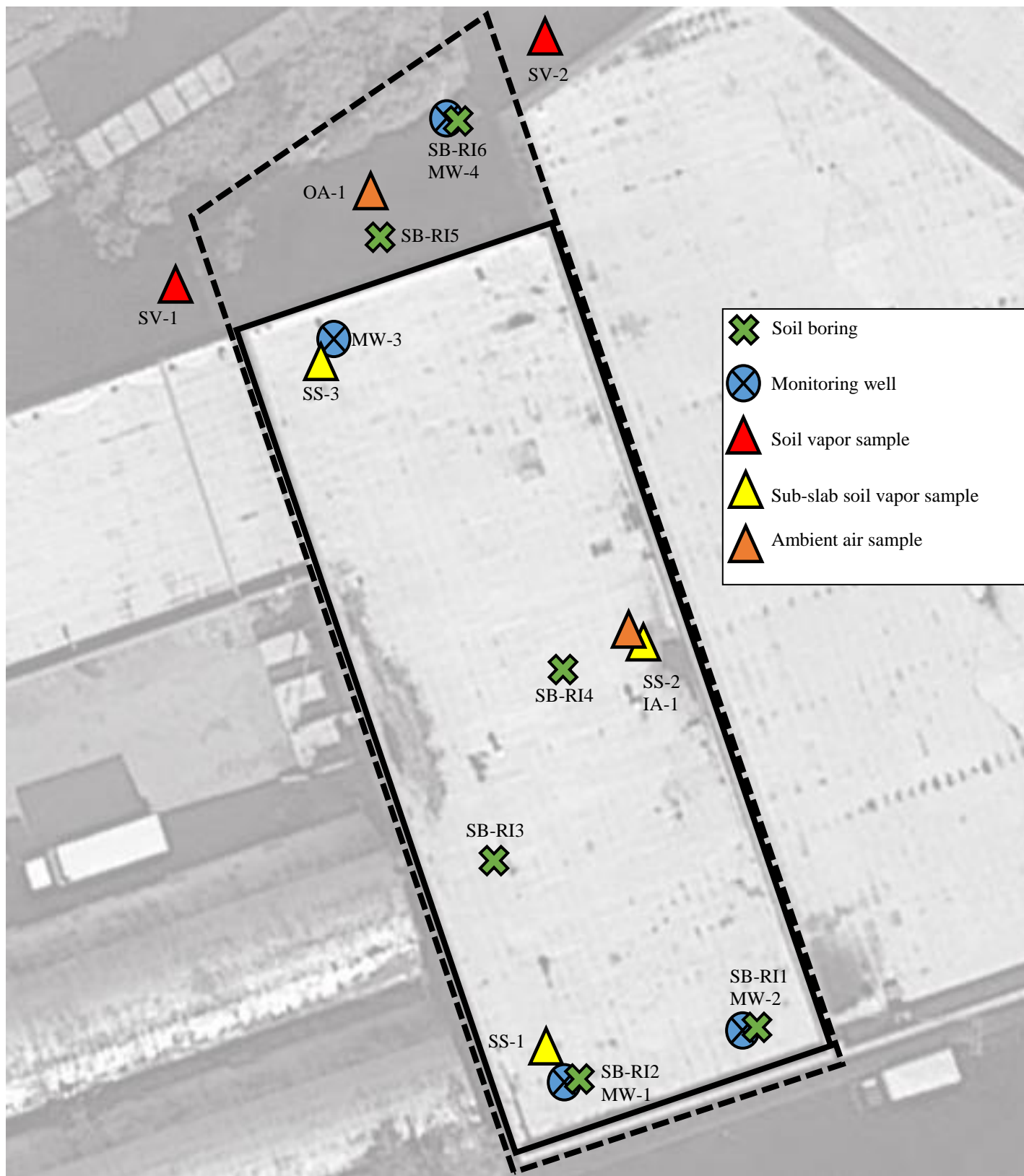


Figure 2.0

SITE SKETCH AND
SAMPLING MAP – 7/18/2016

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

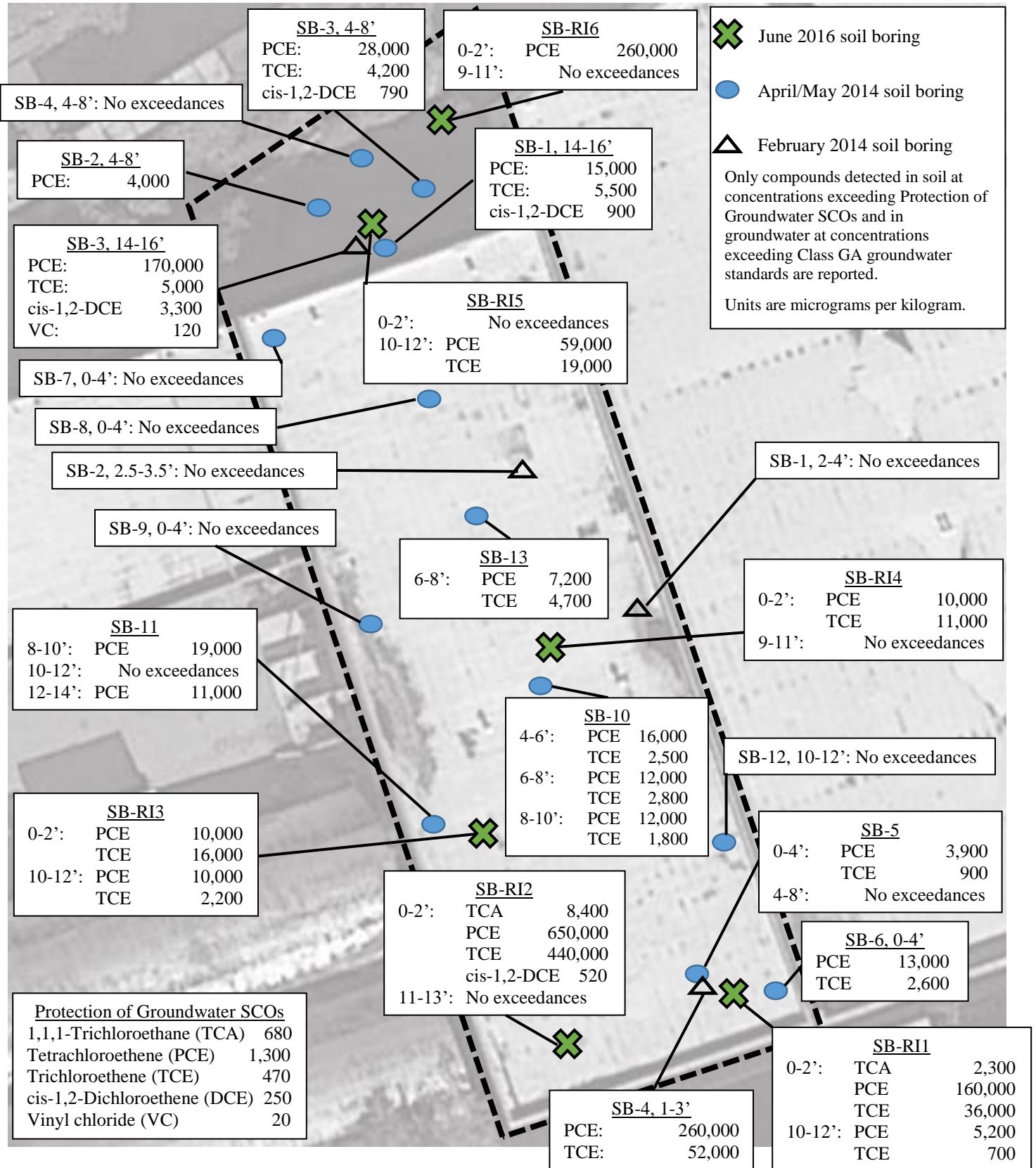
DRAWN BY: KW

CHECKED BY: SAY



53 West Hills Road, Suite 1
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FAX: 631-427-5323



53 West Hills Road, Suite 1
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Figure 3.0

SOIL QUALITY SUMMARY FOR
SELECT VOCs IN COMPARISON
TO PROTECTION OF
GROUNDWATER SOIL CLEANUP
OBJECTIVES

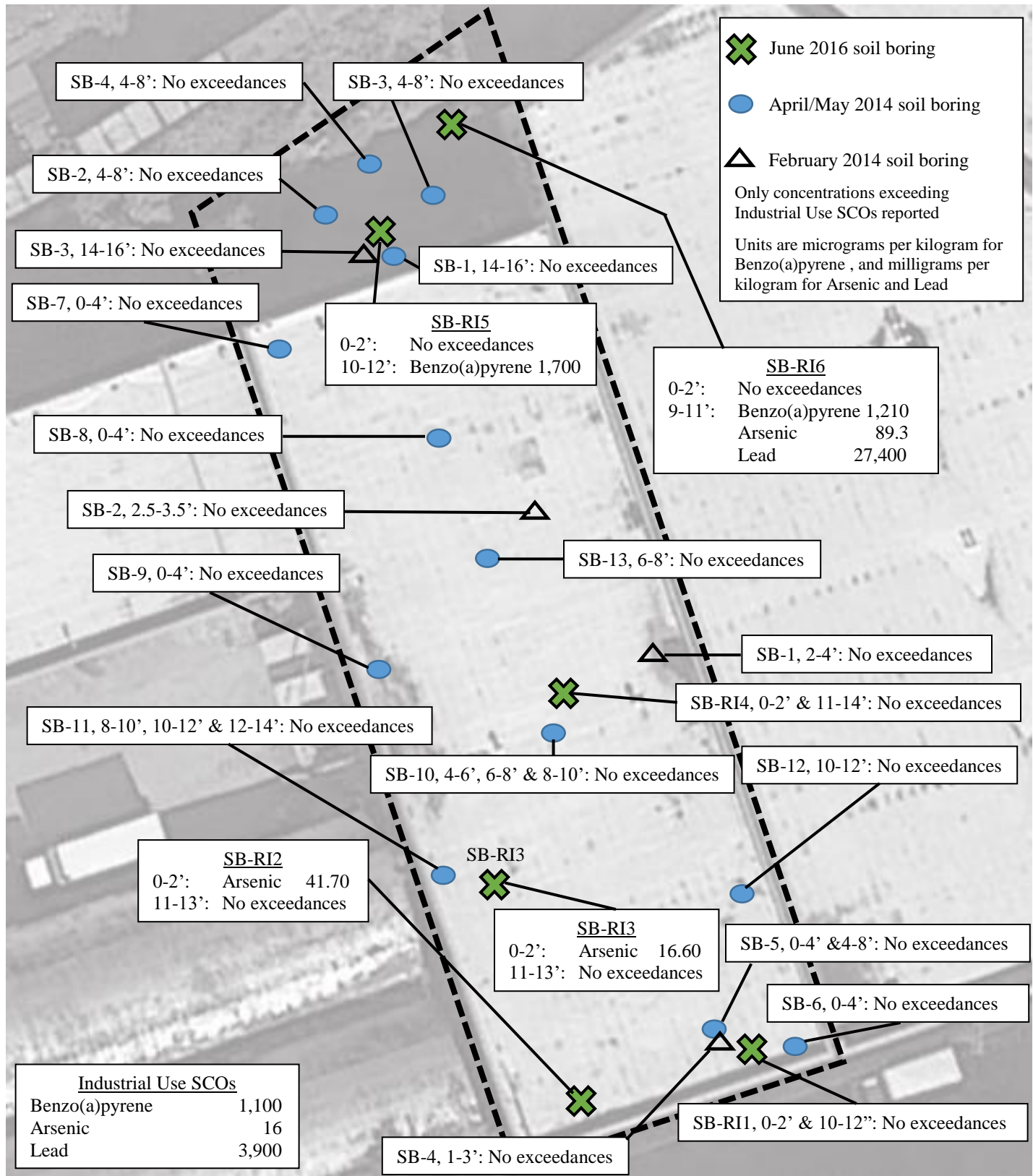
255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT #: 16-203.1

DRAWING DATE: 8-25-2016

DRAWN BY: KW

CHECKED BY: SAY



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Huntington Station, NY 11746
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Figure 4.0

SOIL QUALITY SUMMARY FOR
NON-VOCs IN COMPARISON TO
INDUSTRIAL USE SOIL CLEANUP
OBJECTIVES

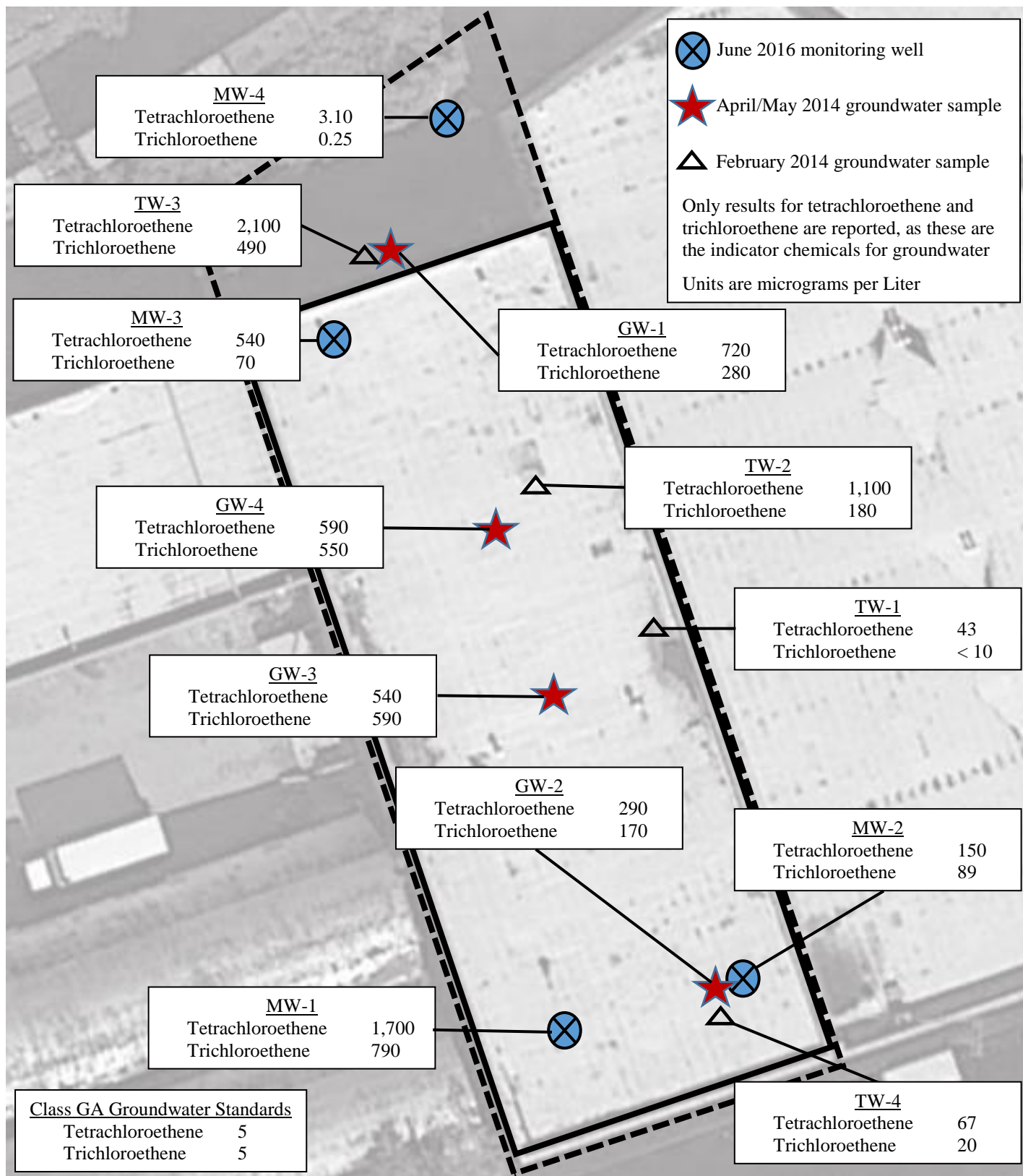
255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT #: 16-203.1

DRAWING DATE: 8-24-2016

DRAWN BY: KW

CHECKED BY: SAY



53 West Hills Road, Suite 1
Huntington Station, NY 11746

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Figure 5.0

GROUNDWATER QUALITY
SUMMARY

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT #: 16-203.1

DRAWING DATE: 8-19-2016

DRAWN BY: KW

CHECKED BY: SAY

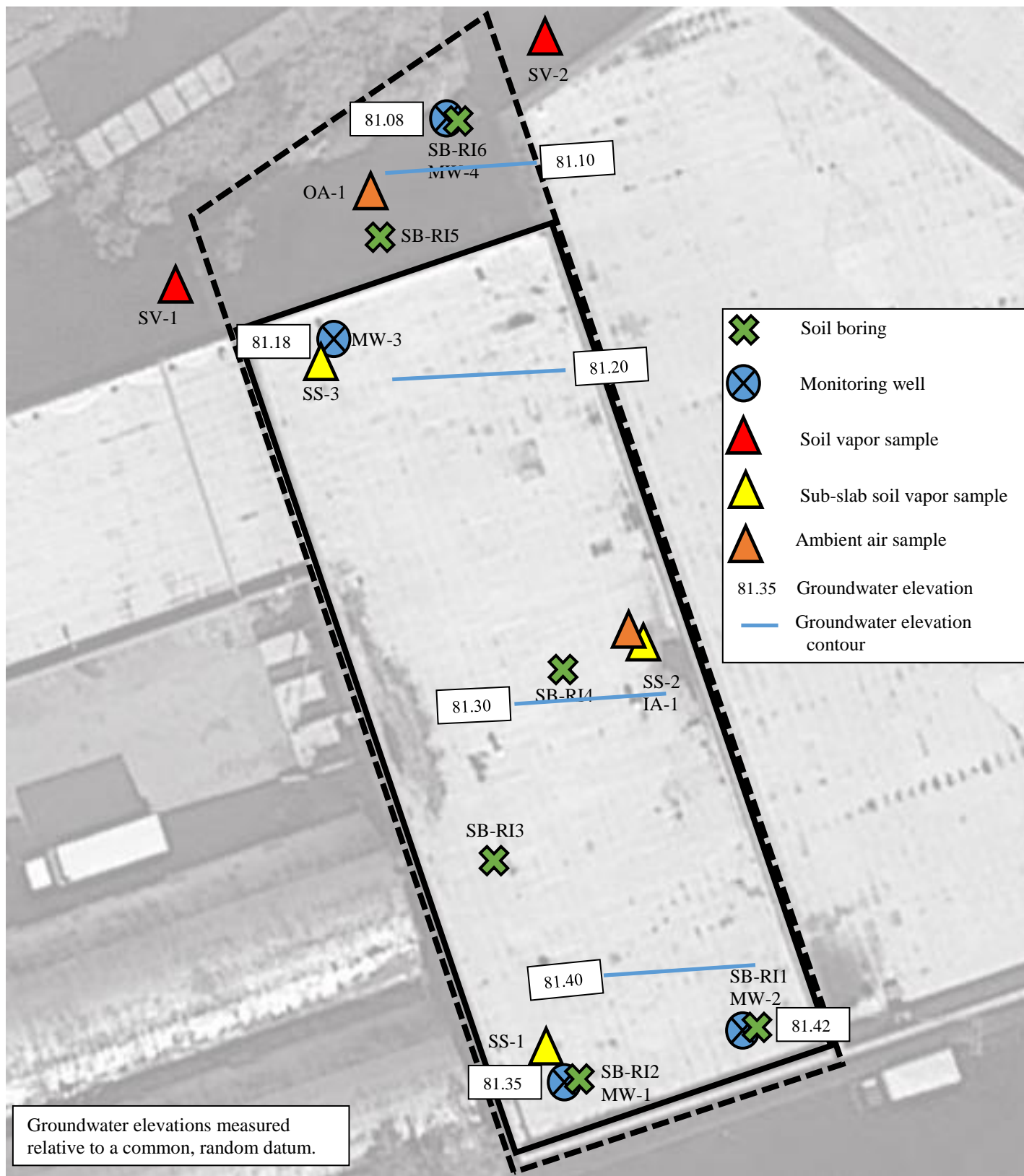


Figure 6.0

GROUNDWATER ELEVATION
CONTOUR MAP – 7/18/2016

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

DRAWN BY: KW

CHECKED BY: SAY



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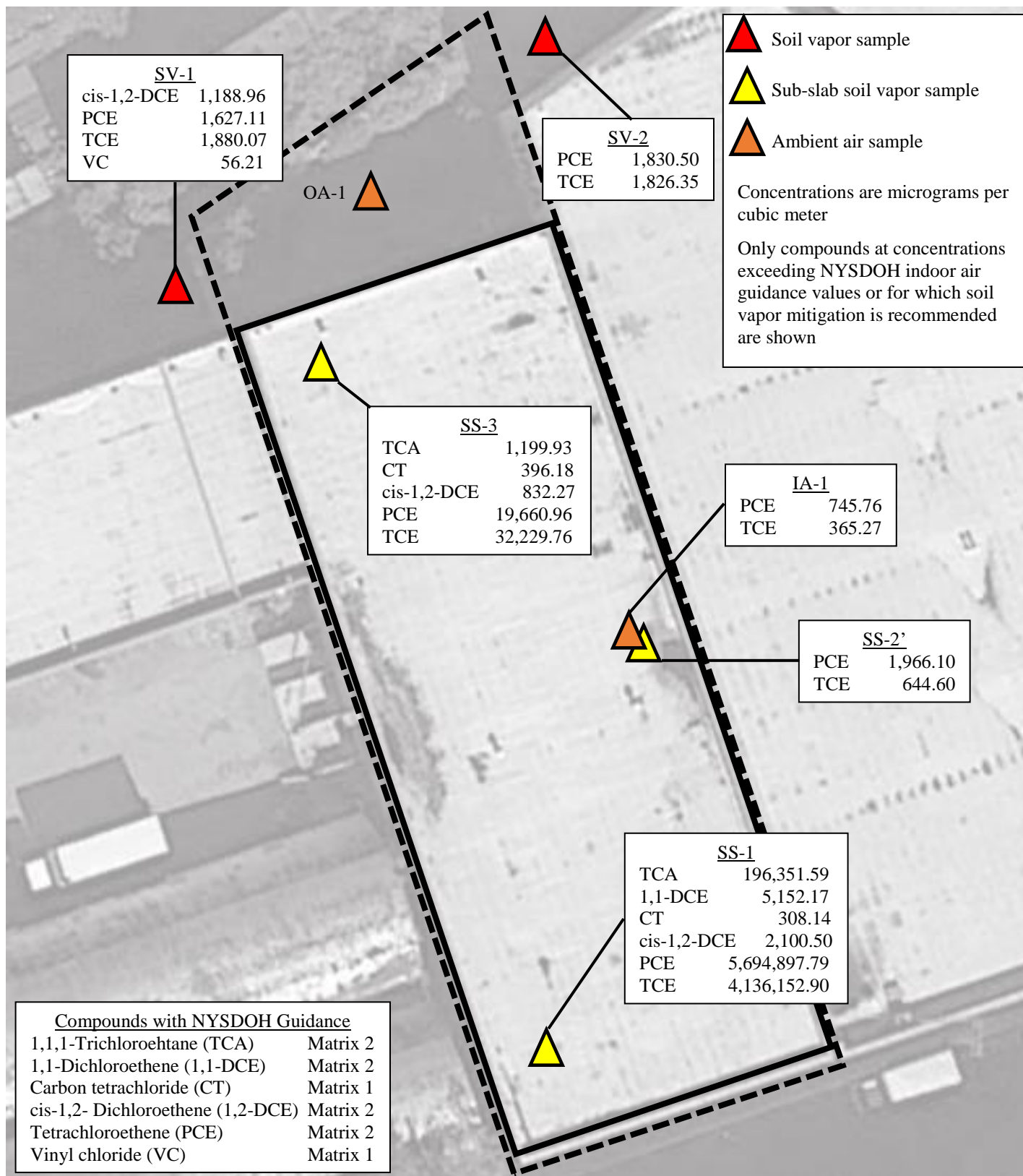


Figure 7.0

SITE SKETCH AND SOIL VAPOR
SAMPLES WHERE MITIGATION IS
RECOMMENDED

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

DRAWN BY: KW

CHECKED BY: SAY



53 West Hills Road, Suite 1
Huntington Station, NY 11746

PHONE: 631-673-0612
FAX: 631-427-5323

Table I
Compounds Detected in Soil Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Industrial	SB-R11 @ 0-2' 16G0570-01 7/14/2016 15:00 Soil		SB-R11 @ 10-12' 16G0570-02 7/14/2016 15:00 Soil		SB-R12 @ 0-2' 16G0570-03 7/14/2016 15:00 Soil		SB-R12 @ 11-13' 16G0570-04 7/14/2016 15:00 Soil		SB-R13 @ 0-2' 16G0570-05 7/14/2016 15:00 Soil		SB-R13 @ 11-13' 16G0570-06 7/14/2016 15:00 Soil		SB-R14 @ 0-2' 16G0570-07 7/14/2016 15:00 Soil	
Compound	CAS Number			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor				2,000		100		10,000		1		100		100		100	
1,1,1-Trichloroethane	71-55-6	680	1,000,000	2,300	D	250	U	8,400	D	3.4	J	310	U	410	U	280	U
1,2-Dichlorobenzene	95-50-1	1,100	1,000,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
1,4-Dichlorobenzene	106-46-7	1,800	250,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
1,4-Dioxane	123-91-1	100	250,000	5,300	U	4,900	U	8,800	U	120		6,200	U	8,300	U	5,700	U
2-Butanone	78-93-3	120	1,000,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Acetone	67-64-1	65	1,000,000	530	U	490	U	880	U	4.5	U	630	JBD	830	U	570	U
Carbon tetrachloride	56-23-5	760	44,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Chloroform	67-66-3	370	700,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
cis-1,2-Dichloroethylene	156-59-2	250	1,000,000	260	U	250	U	520	JD	2.3	U	310	U	410	U	280	U
Methylene chloride	75-09-2	50	1,000,000	530	U	490	U	880	U	4.5	U	620	U	830	U	570	U
Naphthalene	91-20-3	12,000	1,000,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
o-Xylene	95-47-6	1,600	1,000,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
p- & m- Xylenes	179601-23-1	1,600	1,000,000	530	U	490	U	880	U	4.5	U	620	U	830	U	570	U
Tetrachloroethylene	127-18-4	1,300	300,000	160,000	D	5,200	D	650,000	D	200	E	16,000	D	10,000	D	10,000	D
trans-1,2-Dichloroethylene	156-60-5	190	1,000,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Trichloroethylene	79-01-6	470	400,000	36,000	D	700	D	440,000	D	76		10,000	D	2,200	D	11,000	D
Xylenes, Total	1330-20-7	1,600	1,000,000	790	U	740	U	1,300	U	6.8	U	930	U	1,200	U	850	U
Semi-Volatile Organics			µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor				10		2		2		2		2		2		2	
Acenaphthene	83-32-9		1,000,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	83.3	JD
Acenaphthylene	208-96-8		1,000,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	46.2	U
Anthracene	120-12-7		1,000,000	109	U	43.4	U	84.6	JD	43.3	U	45.8	U	45.4	U	453	D
Benzo(a)anthracene	56-55-3		11,000	109	U	43.4	U	523	D	43.3	U	91.2	JD	45.4	U	2,350	D
Benzo(a)pyrene	50-32-8		1,100	217	U	43.4	U	529	D	43.3	U	96.3	D	45.4	U	883	D
Benzo(b)fluoranthene	205-99-2		11,000	217	U	43.4	U	512	D	43.3	U	98.5	D	45.4	U	1,430	D
Benzo(g,h,i)perylene	191-24-2		1,000,000	109	U	43.4	U	236	D	43.3	U	45.8	U	45.4	U	345	D
Benzo(k)fluoranthene	207-08-9		110,000	217	U	43.4	U	386	D	43.3	U	83.2	JD	45.4	U	876	D
Chrysene	218-01-9		110,000	217	U	43.4	U	619	D	43.3	U	104	D	45.4	U	2,170	D
Dibenzo(a,h)anthracene	53-70-3		1,100	109	U	43.4	U	88.5	JD	43.3	U	45.8	U	45.4	U	172	D
Dibenzofuran	132-64-9		1,000,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	82.6	JD
Fluoranthene	206-44-0		1,000,000	187	JD	43.4	U	924	D	43.3	U	156	D	45.4	U	5,900	D
Fluorene	86-73-7		1,000,000	109	U	43.4	U	92.5	JD	43.3	JD	45.8	U	45.4	U	122	D
Indeno(1,2,3-cd)pyrene	193-39-5		11,000	109	U	43.4	U	236	D	43.3	U	45.8	U	45.4	U	390	D
Naphthalene	91-20-3		1,000,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	46.2	U
Phenanthrene	85-01-8		1,000,000	109	U	43.4	U	485	D	43.3	U	66.4	JD	45.4	U	5,760	D
Pyrene	129-00-0		1,000,000	177	JD	43.4	U	876	D	43.3	U	147	D	45.4	U	4,950	D
Pesticides			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				5		5		5		5		5		5		5	
alpha-Chlordane	5103-71-9		47	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U

Table I (continued)
Compounds Detected in Soil Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Industrial	SB-R11 @ 0-2' 16G0570-01 7/14/2016 15:00 Soil		SB-R11 @ 10-12' 16G0570-02 7/14/2016 15:00 Soil		SB-R12 @ 0-2' 16G0570-03 7/14/2016 15:00 Soil		SB-R12 @ 11-13' 16G0570-04 7/14/2016 15:00 Soil		SB-R13 @ 0-2' 16G0570-05 7/14/2016 15:00 Soil		SB-R13 @ 11-13' 16G0570-06 7/14/2016 15:00 Soil		SB-R14 @ 0-2' 16G0570-07 7/14/2016 15:00 Soil	
Compound	CAS Number			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Metals			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Arsenic	7440-38-2		16	2.58		1.21		41.70		1.04	U	16.60		2.44		4.52	
Barium	7440-39-3		10,000	34.60		27.20		357		23.90		51.60		26.20		125	
Beryllium	7440-41-7		2,700	0.10	U	0.13		0.22		0.14		0.11	U	0.19		0.34	
Cadmium	7440-43-9		60	0.31	U	0.31	U	0.35	U	0.31	U	0.33	U	0.33	U	0.33	U
Chromium	7440-47-3		~	10.40		9.90		16.90		7.61		18.20		16		11.60	
Copper	7440-50-8		10,000	25.30		18.50		80.40		9.77		28.30		8.93		26.90	
Lead	7439-92-1		3,900	36.30		2.91		334		1.99		57.60		3.59		241	
Manganese	7439-96-5		10,000	156		266		168		328		278		253		358	
Nickel	7440-02-0		10,000	9.54		8.03		13.70		8.06		11.90		12.40		9.85	
Selenium	7782-49-2		6,800	1.04	U	2.51		6.83		2.43		6.81		3.71		3.52	
Zinc	7440-66-6		10,000	32.20		16.70		109		49.50		47.40		46.80		41	
Mercury by 7470/7471			mg/Kg														
Dilution Factor				NT		NT		NT		NT		NT		NT		NT	
Mercury	7439-97-6		5.7	NT		NT		NT		NT		NT		NT		NT	
Mercury by 7473			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Mercury	7439-97-6		5.7	0.16		0.031	U	1.32		0.031	U	0.19		0.033	U	1.54	
Chromium, Hexavalent			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Chromium, Hexavalent	18540-29-9		800	0.52	U	1.87		0.59	U	0.52	U	0.55	U	0.54	U	0.55	U
Chromium, Trivalent			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Chromium, Trivalent	16065-83-1		6800	10.40		8.60		23.60		7.61		18.20		16		11.60	
Cyanide, Total			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Cyanide, total	57-12-5		10000	0.52	U	0.52	U	0.59	U	0.52	U	0.55	U	0.54	U	0.55	U
Total Solids				%		%		%		%		%		%		%	
Dilution Factor				1		1		1		1		1		1		1	
% Solids	solids		~	96.20		96.40		85.10		96.50		91.40		92.10		90.40	
Polychlorinated Biphenyls (PCB)			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1		1	
Aroclor 1254	11097-69-1		~	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U
Aroclor 1260	11096-82-5		~	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U
Total PCBs	1336-36-3		25	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U

NOTES:

Indicates exceedance of 6 NYCRR Part 375 Protection of Groundwater Soil Cleanup Objective
Indicates exceedance of 6 NYCRR Part 375 Industrial Use Soil Cleanup Objective

*: Duplicate sample from SB-R12 0-2'

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte



Table I (continued)
Compounds Detected in Soil Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Industrial	SB-R14 @ 11-13' 16G0570-08 7/14/2016 15:00 Soil		Soil Dup @ 0-2' * 16G0570-09 7/14/2016 15:00 Soil		SB-R15 @ 0-2' 16G0639-01 7/15/2016 15:00 Soil		SB-R15 @ 10-12' 16G0639-02 7/15/2016 15:00 Soil		SB-R16 @ 0-2' 16G0639-03 7/15/2016 15:00 Soil		SB-R16 @ 9-11' 16G0639-04 7/15/2016 15:00 Soil	
Compound	CAS Number			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor				1		20000		1		1007		4900		1	
1,1,1-Trichloroethane	71-55-6	680	1,000,000	5		7,200	D	3.1	U	61		3.7	J	4	U
1,2-Dichlorobenzene	95-50-1	1,100	1,000,000	2.3	U	350	U	3.1	U	11		2.3	U	4	U
1,4-Dichlorobenzene	106-46-7	1,800	250,000	2.3	U	350	U	3.1	U	2.9	J	2.3	U	4	U
1,4-Dioxane	123-91-1	100	250,000	46	U	7,000	U	62	U	54	U	46	U	79	U
2-Butanone	78-93-3	120	1,000,000	2.3	J	350	U	3.1	U	2.7	U	77		8.2	
Acetone	67-64-1	65	1,000,000	4.6	U	760	JBD	10	JB	27	B	4.6	U	18	B
Carbon tetrachloride	56-23-5	760	44,000	2.3	U	350	U	3.1	U	3.2	J	2.3	U	4	U
Chloroform	67-66-3	370	700,000	2.3	U	350	U	3.1	U	18		2.7	J	4	U
cis-1,2-Dichloroethylene	156-59-2	250	1,000,000	2.3	U	540	JD	3.1	U	110		66		22	
Methylene chloride	75-09-2	50	1,000,000	4.6	U	700	U	6.2	U	6.1	J	4.6	U	7.9	U
Naphthalene	91-20-3	12,000	1,000,000	2.3	U	350	U	3.1	U	6.6	J	2.3	U	4	U
o-Xylene	95-47-6	1,600	1,000,000	2.3	U	350	U	3.1	U	5.6		2.3	U	4	U
p- & m- Xylenes	179601-23-1	1,600	1,000,000	4.6	U	700	U	6.2	U	7.9	J	4.6	U	7.9	U
Tetrachloroethylene	127-18-4	1,300	300,000	120		640,000	D	14		59,000	D	260,000	D	160	
trans-1,2-Dichloroethylene	156-60-5	190	1,000,000	2.3	U	350	U	3.1	U	12		4.2	J	4	U
Trichloroethylene	79-01-6	470	400,000	76		530,000	D	3.1	U	19,000	D	120		36	
Xylenes, Total	1330-20-7	1,600	1,000,000	6.9	U	1,100	U	9.2	U	14	J	7	U	12	U
Semi-Volatile Organics			µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor				2		2		2		10		2		2	
Acenaphthene	83-32-9		1,000,000	47.3	U	48.2	U	54.2	JD	996	D	177	D	92.2	JD
Acenaphthylene	208-96-8		1,000,000	47.3	U	48.2	U	104	D	233	D	56.7	JD	46.6	U
Anthracene	120-12-7		1,000,000	47.3	U	80.7	JD	218	D	3,120	D	426	D	237	D
Benzo(a)anthracene	56-55-3		11,000	47.3	U	503	D	815	D	5,200	D	943	D	1,480	D
Benzo(a)pyrene	50-32-8		1,100	47.3	U	476	D	221	D	1,700	D	473	D	1,210	D
Benzo(b)fluoranthene	205-99-2		11,000	47.3	U	582	D	283	D	2,010	D	551	D	1,110	D
Benzo(g,h,i)perylene	191-24-2		1,000,000	47.3	U	184	D	187	D	880	D	350	D	768	D
Benzo(k)fluoranthene	207-08-9		110,000	47.3	U	269	D	345	D	2,240	D	500	D	1,130	D
Chrysene	218-01-9		110,000	47.3	U	557	D	766	D	4,950	D	841	D	1,390	D
Dibenzo(a,h)anthracene	53-70-3		1,100	47.3	U	65.3	JD	47.2	U	503	D	180	D	431	D
Dibenzofuran	132-64-9		1,000,000	47.3	U	48.2	U	47.2	U	832	D	96.2	D	46.6	U
Fluoranthene	206-44-0		1,000,000	47.3	U	838	D	1,450	D	11,200	D	1,820	D	2,280	D
Fluorene	86-73-7		1,000,000	47.3	U	87.6	JD	55.7	JD	1,300	D	195	D	46.6	U
Indeno(1,2,3-cd)pyrene	193-39-5		11,000	47.3	U	172	D	197	D	1,050	D	324	D	773	D
Naphthalene	91-20-3		1,000,000	47.3	U	48.2	U	47.2	U	353	D	58.2	JD	46.6	U
Phenanthrene	85-01-8		1,000,000	47.3	U	440	D	676	D	12,100	D	1,390	D	653	D
Pyrene	129-00-0		1,000,000	47.3	U	788	D	2,130	D	8,040	D	1,530	D	1,910	D
Pesticides			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				5		5		5		5		5		5	
alpha-Chlordane	5103-71-9		47	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0028	D	0.0017	U

Table I (continued)
Compounds Detected in Soil Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Industrial	SB-R14 @ 11-13' 16G0570-08 7/14/2016 15:00 Soil		Soil Dup @ 0-2' * 16G0570-09 7/14/2016 15:00 Soil		SB-R15 @ 0-2' 16G0639-01 7/15/2016 15:00 Soil		SB-R15 @ 10-12' 16G0639-02 7/15/2016 15:00 Soil		SB-R16 @ 0-2' 16G0639-03 7/15/2016 15:00 Soil		SB-R16 @ 9-11' 16G0639-04 7/15/2016 15:00 Soil	
Compound	CAS Number			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Metals			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		100	
Arsenic	7440-38-2		16	1.13	U	36.60		4.15		5.11		6.63		89.30	
Barium	7440-39-3		10,000	18		936		78.70		150		99.70		323	
Beryllium	7440-41-7		2,700	0.11	U	0.23		0.11	U	0.11	U	0.24		0.17	
Cadmium	7440-43-9		60	0.34	U	0.35	U	0.86		0.34	U	1.05		0.44	
Chromium	7440-47-3		~	8.60		23.60		24.90		73.80		28.90		15.90	
Copper	7440-50-8		10,000	11.10		93.90		99.90		58.50		136		132	
Lead	7439-92-1		3,900	1.66		518		220		2,890		293		27,400	D
Manganese	7439-96-5		10,000	292		165		198		188		206		35.80	
Nickel	7440-02-0		10,000	6.75		16		30.40		931		25.30		19.80	
Selenium	7782-49-2		6,800	2.18		6.33		1.13	U	3.48		1.12	U	4.76	
Zinc	7440-66-6		10,000	14.50		124		285	B	1,240	B	440	B	592	B
Mercury by 7470/7471			mg/Kg											mg/Kg	
Dilution Factor														1	
Mercury	7439-97-6		5.7	NT		NT		NT		NT		NT		0.038	
Mercury by 7473			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg			
Dilution Factor				1		1		1		1		1			
Mercury	7439-97-6		5.7	0.034	U	1.36		0.72		2.04		2.12		NT	
Chromium, Hexavalent			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1	
Chromium, Hexavalent	18540-29-9		800	0.57	U	0.58	U	3.12		1.97		0.56	U	0.56	U
Chromium, Trivalent			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1	
Chromium, Trivalent	16065-83-1		6800	8.60		23.60		21.80		71.80		28.90		15.90	
Cyanide, Total			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1	
Cyanide, total	57-12-5		10000	0.57	U	0.58	U	0.57	U	0.57	U	0.56	U	0.84	
Total Solids			%	%		%		%		%		%		%	
Dilution Factor				1		1		1		1		1		1	
% Solids	solids		~	88.40		86.80		88.50		87.50		89.40		89.60	
Polychlorinated Biphenyls (PCB)			mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor				1		1		1		1		1		1	
Aroclor 1254	11097-69-1		~	0.019	U	0.019	U	0.085		0.019	U	0.019	U	0.019	U
Aroclor 1260	11096-82-5		~	0.019	U	0.019	U	0.019	U	0.019	U	0.046		0.019	U
Total PCBs	1336-36-3		25	0.019	U	0.019	U	0.085		0.019	U	0.046		0.019	U

NOTES:

 Indicates exceedance of 6 NYCRR Part 375 Protection of Groundwater
 Indicates exceedance of 6 NYCRR Part 375 Industrial Use Soil Clear

*: Duplicate sample from SB-R12 0-2'

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) -

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table II
Compounds Detected in Monitoring Well Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC TOGS Standards and Guidance Values - GA	MW-1 16G0638-01 7/18/2016 13:00 Water		MW-2 16G0638-02 7/18/2016 13:00 Water		MW-3 16G0638-03 7/18/2016 13:00 Water		MW-4 16G0638-04 7/18/2016 13:00 Water		Equipment Blank 16G0638-05 7/18/2016 13:00 Water		GW Dup * 16G0638-06 7/18/2016 13:00 Water		Trip Blank 16G0638-07 7/18/2016 13:00 Water	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Dilution Factor			1		1		1		1		1		1		1	
1,1,1-Trichloroethane	71-55-6	5	65		7.70		1.10		0.20	U	0.20	U	7.20		0.20	U
1,1-Dichloroethane	75-34-3	5	0.59		0.27	J	1.90		14		0.20	U	0.27	J	0.20	U
1,1-Dichloroethylene	75-35-4	5	1.20		0.20	U	4.70		0.20	U	0.20	U	0.20	U	0.20	U
1,2-Dichlorobenzene	95-50-1	3	0.20	U	0.20	U	0.50		0.20	U	0.20	U	0.20	U	0.20	U
1,2-Dichloroethane	107-06-2	0.6	0.59	B	0.62	B	0.61	B	0.20	U	0.20	U	0.20	U	0.20	U
Acetone	67-64-1	50	1	U	1	U	1	U	1.50	JB	1.30	JB	1	U	2.10	B
Carbon tetrachloride	56-23-5	5	0.20	U	2.20		0.20	U	0.20	U	0.20	U	2.30		0.20	U
Chlorobenzene	108-90-7	5	0.43	J	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Chloroform	67-66-3	7	1.80		1.10		0.62		0.20	U	0.20	U	1.20		0.20	U
cis-1,2-Dichloroethylene	156-59-2	5	5.20		1.60		230	D	9.20		0.20	U	1.40		0.20	U
Tetrachloroethylene	127-18-4	5	1,700	D	150		540	D	3.10		0.20	U	140		0.20	U
trans-1,2-Dichloroethylene	156-60-5	5	0.20	U	0.20	U	6.30		0.24	J	0.20	U	0.20	U	0.20	U
Trichloroethylene	79-01-6	5	790	D	89		70		0.25	J	0.20	U	87		0.20	U
Vinyl Chloride	75-01-4	2	0.20	U	0.20	U	0.20	U	42		0.20	U	0.20	U	0.20	U
SVOCs	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Acenaphthene	83-32-9	20	0.057	U	0.057	U	0.059	U	0.14		0.059	U	0.056	U	NT	
Acenaphthylene	208-96-8	~	0.057	U	0.057	U	0.059	U	0.056		0.059	U	0.056	U	NT	
Anthracene	120-12-7	50	0.057	U	0.057	U	0.059	U	0.089		0.059	U	0.056	U	NT	
Fluoranthene	206-44-0	50	0.057	U	0.057	U	0.059	U	0.067		0.059	U	0.056	U	NT	
Fluorene	86-73-7	50	0.057	U	0.057	U	0.059	U	0.10		0.059	U	0.056	U	NT	
Naphthalene	91-20-3	10	0.057	U	0.057	U	0.059	U	0.16		0.059	U	0.056	U	NT	
Phenanthrene	85-01-8	50	0.057	U	0.057	U	0.059	U	0.40		0.059	U	0.056	U	NT	
Pyrene	129-00-0	50	0.057	U	0.057	U	0.059	U	0.10		0.059	U	0.056	U	NT	
Pesticides	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Dieldrin	60-57-1	0.004	0.0024	U	0.0023	U	0.0055		0.0023	U	0.0024	U	0.0022	U	NT	
Metals, Total	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Barium	7440-39-3	1,000	58		41		67		27		11	U	42		NT	
Chromium	7440-47-3	50	6	U	6	U	10		6	U	6	U	6	U	NT	
Copper	7440-50-8	200	18		27		27		17		13		12		NT	
Lead	7439-92-1	25	3	U	3	U	7		85		3	U	3	U	NT	
Manganese	7439-96-5	300	187		232		1,520		1,140		6	U	236		NT	
Nickel	7440-02-0	100	6	U	6	U	6		6	U	6	U	6	U	NT	
Zinc	7440-66-6	2,000	25		41		42		45		23		22		NT	
Metals, Dissolved	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Barium	7440-39-3	1,000	60		43		35		12		11	U	43		NT	
Copper	7440-50-8	200	46		25		20		17		14		13		NT	
Manganese	7439-96-5	300	207		221		1,400		1,120		6	U	239		NT	
Zinc	7440-66-6	2,000	37		29		23		17		21		158		NT	
Mercury by 7473, Dissolved	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Chromium, Trivalent	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Chromium, Trivalent	16065-83-1	~	10	U	10	U	10		10	U	10	U	10	U	NT	

NOTES:

Any Regulatory Exceedences are color coded by Regulation

*: Duplicate sample collected from MW-2

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table III
Compounds With NYSDOH Criteria Detected in Soil Vapor and Ambient Air Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDOH Criteria		IA-1 16G0568-01 7/14/2016 15:00 Indoor Ambient Air		OA-1 16G0568-02 7/14/2016 15:00 Outdoor Ambient Air		SS-1 16G0568-03 7/14/2016 15:00 Soil Vapor		SS-2 16G0568-04 7/14/2016 15:00 Soil Vapor		SS-3 16G0568-05 7/14/2016 15:00 Soil Vapor		SV-1 16G0568-06 7/14/2016 15:00 Soil Vapor		SV-2 16G0568-07 7/14/2016 15:00 Soil Vapor	
Compound	CAS Number	Sub-slab Soil Vapor	Ambient Air	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs		µg/m ³	µg/m ³	µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³	
Dilution Factor				10.08		1.00		16,729.00		18.33		184.00		20.00		18.53	
1,1,1-Trichloroethane	71-55-6	100	100	37.09	D	1.36		196,351.59	D	37.09	D	1,199.93	D	54.54	D	261.80	D
1,1-Dichloroethylene	75-35-4	100	100	1.11	D	0.40	U	5,152.17	D	7.13	U	9.51	D	7.93	U	7.53	U
Carbon tetrachloride	56-23-5	5	5	1.01	D	0.16	U	308.14	D	2.89	U	396.18	D	3.14	U	20.12	D
cis-1,2-Dichloroethylene	156-59-2	100	100	5.55	D	0.40	U	2,100.50	D	7.13	U	832.27	D	1,188.96	D	36.86	D
Tetrachloroethylene	127-18-4	100	30	745.76	D	29.83		5,694,897.79	D	1,966.10	D	19,660.96	D	1,627.11	D	1,830.50	D
Trichloroethylene	79-01-6	5	2	365.27	D	16.11		4,136,152.90	D	644.60	D	32,229.76	D	1,880.07	D	1,826.35	D
Vinyl Chloride	75-01-4	5	5	0.28	U	0.26	U	7.92	D	4.60	U	4.60	U	56.21	D	4.85	U

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Bold	Mitigation Recommended
<i>Bold Italic</i>	Monitoring Recommended

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

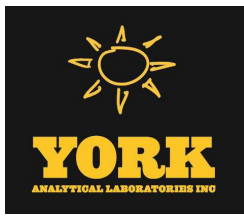
B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

~=this indicates that no regulatory limit has been established for this analyte

APPENDIX A

Laboratory Analysis
-Soil Boring Analysis
-Groundwater Analysis
-Air Quality Analysis



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0570

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0570

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 15, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0570-01	SB-RI1 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-02	SB-RI1 @ 10-12'	Soil	07/14/2016	07/15/2016
16G0570-03	SB-RI2 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-04	SB-RI2 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-05	SB-RI3 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-06	SB-RI3 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-07	SB-RI4 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-08	SB-RI4 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-09	Soil Dup @ 0-2'	Soil	07/14/2016	07/15/2016

General Notes for York Project (SDG) No.: 16G0570

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/25/2016





Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.

16G0570

Client Project ID

255 Randolph Street

Matrix

Soil

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	2.3		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	5.3	11	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
71-43-2	Benzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
67-66-3	Chloroform	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.26	1.1	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS



Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:33	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:33	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
127-18-4	Tetrachloroethylene	160		mg/kg dry	5.3	11	2000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:21	BK
108-88-3	Toluene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
79-01-6	Trichloroethylene	36		mg/kg dry	5.3	11	2000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:21	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.79	1.6	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %	77-125								
2037-26-5	Surrogate: Toluene-d8	95.4 %	85-120								
460-00-4	Surrogate: p-Bromofluorobenzene	87.0 %	76-130								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
120-12-7	Anthracene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR



Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
218-01-9	Chrysene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
53-70-3	Dibenzo(a,h)anthracene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
206-44-0	Fluoranthene	0.187	J	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
86-73-7	Fluorene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
108-95-2	Phenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
129-00-0	Pyrene	0.177	J	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	30.8 %	20-108								
4165-62-2	Surrogate: Phenol-d5	41.0 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	60.1 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	32.6 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	30.2 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	32.2 %	24-116								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC



Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	76.5 %				30-150					
877-09-8	Surrogate: Tetrachloro-m-xylene	60.6 %				30-150					

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC



Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:03	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	63.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	59.0 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	2.58		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-39-3	Barium	34.6		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.312	0.312	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-47-3	Chromium	10.4		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-50-8	Copper	25.3		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7439-92-1	Lead	36.3		mg/kg dry	0.312	0.312	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7439-96-5	Manganese	156		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-02-0	Nickel	9.54		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7782-49-2	Selenium	ND		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-22-4	Silver	ND		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-66-6	Zinc	32.2		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.162		mg/kg dry	0.0312	0.0312	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 11:25	KV



Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.2		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.364	0.520	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	10.4		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.520	0.520	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	4.9	9.8	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
71-43-2	Benzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
67-66-3	Chloroform	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.25	0.98	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:04	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:04	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	5.2		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-88-3	Toluene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
79-01-6	Trichloroethylene	0.70		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.74	1.5	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %				77-125					
2037-26-5	Surrogate: Toluene-d8	98.1 %				85-120					
460-00-4	Surrogate: p-Bromofluorobenzene	91.0 %				76-130					

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Collection Date/Time
July 14, 2016 3:00 pm

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07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
108-95-2	Phenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	85.0 %									
4165-62-2	Surrogate: Phenol-d5	104 %									
4165-60-0	Surrogate: Nitrobenzene-d5	126 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	78.2 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	48.4 %									
1718-51-0	Surrogate: Terphenyl-d14	77.6 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/25/2016 12:58	AMC



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
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255 Randolph Street

Matrix
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Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	78.4 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	39.7 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:24	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	63.0 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	69.0 %		30-140							



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	1.21		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-39-3	Barium	27.2		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-41-7	Beryllium	0.130		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-47-3	Chromium	9.90		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-50-8	Copper	18.5		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7439-92-1	Lead	2.91		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7439-96-5	Manganese	266		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-02-0	Nickel	8.03		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7782-49-2	Selenium	2.51		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-22-4	Silver	ND		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-66-6	Zinc	16.7		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0311	0.0311	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:13	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-R11 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	1.87		mg/kg dry	0.363	0.519	1	EPA 7196A	07/22/2016 09:58	07/22/2016 16:49	LAB
Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP											

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	8.60		mg/kg	0.250	0.500	1	Calculation	07/22/2016 16:57	07/22/2016 17:35	PAM
Certifications:											

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.519	0.519	1	EPA 9014/9010C	07/22/2016 08:03	07/22/2016 16:57	LAB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: SB-R12 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	8.4		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	8.8	18	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
71-43-2	Benzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
67-66-3	Chloroform	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
156-59-2	cis-1,2-Dichloroethylene	0.52	J	mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.44	1.8	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:35	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:35	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
127-18-4	Tetrachloroethylene	650		mg/kg dry	44	88	10000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:51	BK
108-88-3	Toluene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
79-01-6	Trichloroethylene	440		mg/kg dry	44	88	10000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:51	BK



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.3	2.6	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %		77-125							
2037-26-5	Surrogate: Toluene-d8	95.2 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	90.4 %		76-130							

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
120-12-7	Anthracene	0.0846	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
56-55-3	Benzo(a)anthracene	0.523		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
50-32-8	Benzo(a)pyrene	0.529		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
205-99-2	Benzo(b)fluoranthene	0.512		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
191-24-2	Benzo(g,h,i)perylene	0.236		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
207-08-9	Benzo(k)fluoranthene	0.386		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
218-01-9	Chrysene	0.619		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
53-70-3	Dibenzo(a,h)anthracene	0.0885	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
206-44-0	Fluoranthene	0.924		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
86-73-7	Fluorene	0.0925	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.236		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
85-01-8	Phenanthrene	0.485		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
108-95-2	Phenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
129-00-0	Pyrene	0.876		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR

Surrogate Recoveries		Result	Acceptance Range	
367-12-4	Surrogate: 2-Fluorophenol	65.6 %	20-108	
4165-62-2	Surrogate: Phenol-d5	7.18 %	S-08 23-114	
4165-60-0	Surrogate: Nitrobenzene-d5	115 %	S-08 22-108	
321-60-8	Surrogate: 2-Fluorobiphenyl	73.1 %	21-113	
118-79-6	Surrogate: 2,4,6-Tribromophenol	83.5 %	19-110	
1718-51-0	Surrogate: Terphenyl-d14	76.9 %	24-116	

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	198 %	S-HI			30-150					
877-09-8	Surrogate: Tetrachloro-m-xylene	171 %	S-HI			30-150					

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:41	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	160 %	S-HI			30-140					
2051-24-3	Surrogate: Decachlorobiphenyl	130 %	S-HI			30-140					

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	41.7		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-39-3	Barium	357		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-41-7	Beryllium	0.221		mg/kg dry	0.118	0.118	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-47-3	Chromium	16.9		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-50-8	Copper	80.4		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7439-92-1	Lead	334		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7439-96-5	Manganese	168		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-02-0	Nickel	13.7		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7782-49-2	Selenium	6.83		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-22-4	Silver	ND		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-66-6	Zinc	109		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.32		mg/kg dry	0.0353	0.0353	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:22	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	85.1		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.411	0.588	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	23.6		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.588	0.588	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	0.0034	J	mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

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July 14, 2016 3:00 pm

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07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
123-91-1	1,4-Dioxane	0.12		mg/kg dry	0.045	0.091	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
71-43-2	Benzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
67-66-3	Chloroform	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.0023	0.0091	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 02:33	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 02:33	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
127-18-4	Tetrachloroethylene	0.20	E	mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-88-3	Toluene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
79-01-6	Trichloroethylene	0.076		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0068	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %			77-125						
2037-26-5	Surrogate: Toluene-d8	98.6 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	89.8 %			76-130						

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
86-73-7	Fluorene	0.0746	J	mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
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Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
108-95-2	Phenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	103 %				20-108					
4165-62-2	Surrogate: Phenol-d5	123 %	S-08			23-114					
4165-60-0	Surrogate: Nitrobenzene-d5	157 %	S-08			22-108					
321-60-8	Surrogate: 2-Fluorobiphenyl	96.3 %				21-113					
118-79-6	Surrogate: 2,4,6-Tribromophenol	103 %				19-110					
1718-51-0	Surrogate: Terphenyl-d14	89.1 %				24-116					

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	111 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	94.4 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:58	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	87.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	78.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
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July 14, 2016 3:00 pm

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Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	23.9		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-41-7	Beryllium	0.144		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-47-3	Chromium	7.61		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-50-8	Copper	9.77		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7439-92-1	Lead	1.99		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7439-96-5	Manganese	328		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-02-0	Nickel	8.06		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7782-49-2	Selenium	2.43		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-22-4	Silver	ND		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-66-6	Zinc	49.5		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0311	0.0311	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:34	KV

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.5		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.363	0.518	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

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255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	7.61		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.518	0.518	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	6.2	12	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	0.63	SCAL- E, J, B	mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
71-43-2	Benzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
67-66-3	Chloroform	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.31	1.2	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:05	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:05	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
127-18-4	Tetrachloroethylene	16		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-88-3	Toluene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
79-01-6	Trichloroethylene	10		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.93	1.9	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	111 %	77-125								
2037-26-5	Surrogate: Toluene-d8	98.2 %	85-120								



Sample Information

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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	88.9 %			76-130						

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
56-55-3	Benzo(a)anthracene	0.0912	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
50-32-8	Benzo(a)pyrene	0.0963		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
205-99-2	Benzo(b)fluoranthene	0.0985		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
207-08-9	Benzo(k)fluoranthene	0.0832	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
218-01-9	Chrysene	0.104		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
206-44-0	Fluoranthene	0.156		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-01-8	Phenanthrene	0.0664	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
108-95-2	Phenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
129-00-0	Pyrene	0.147		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	71.5 %									
4165-62-2	Surrogate: Phenol-d5	98.4 %									
4165-60-0	Surrogate: Nitrobenzene-d5	127 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	76.9 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.1 %									
1718-51-0	Surrogate: Terphenyl-d14	75.3 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

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July 14, 2016 3:00 pm

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Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	110 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	87.8 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:15	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	85.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	80.0 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	16.6		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-39-3	Barium	51.6		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.109	0.109	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV



Sample Information

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Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-43-9	Cadmium	ND		mg/kg dry	0.328	0.328	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-47-3	Chromium	18.2		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-50-8	Copper	28.3		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7439-92-1	Lead	57.6		mg/kg dry	0.328	0.328	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7439-96-5	Manganese	278		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-02-0	Nickel	11.9		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7782-49-2	Selenium	6.81		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-22-4	Silver	ND		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-66-6	Zinc	47.4		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.187		mg/kg dry	0.0328	0.0328	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:43	KV

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	91.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.383	0.547	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	18.2		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.547	0.547	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	8.3	17	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.83	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
67-66-3	Chloroform	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.83	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.41	1.7	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:36	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.83	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:36	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
127-18-4	Tetrachloroethylene	10		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
108-88-3	Toluene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
79-01-6	Trichloroethylene	2.2		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.2	2.5	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	108 %	77-125
2037-26-5	Surrogate: Toluene-d8	95.4 %	85-120
460-00-4	Surrogate: p-Bromofluorobenzene	89.7 %	76-130



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
108-95-2	Phenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	74.9 %	20-108								



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	7.90 %	S-08		23-114						
4165-60-0	Surrogate: Nitrobenzene-d5	128 %	S-08		22-108						
321-60-8	Surrogate: 2-Fluorobiphenyl	75.7 %			21-113						
118-79-6	Surrogate: 2,4,6-Tribromophenol	83.5 %			19-110						
1718-51-0	Surrogate: Terphenyl-d14	74.7 %			24-116						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	95.9 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	84.8 %	30-150								



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:30	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	80.5 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-140								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	2.44		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-39-3	Barium	26.2		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-41-7	Beryllium	0.190		mg/kg dry	0.109	0.109	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.326	0.326	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-47-3	Chromium	16.0		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-50-8	Copper	8.93		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7439-92-1	Lead	3.59		mg/kg dry	0.326	0.326	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7439-96-5	Manganese	253		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-02-0	Nickel	12.4		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7782-49-2	Selenium	3.71		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-22-4	Silver	ND		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-66-6	Zinc	46.8		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0326	0.0326	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:52	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	92.1		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Sample Prepared by Method: EPA SW846-3060

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.380	0.543	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Sample Prepared by Method: Analysis Preparation

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	16.0		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Sample Prepared by Method: Analysis Preparation Soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.543	0.543	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	5.7	11	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
71-43-2	Benzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
67-66-3	Chloroform	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.28	1.1	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 07:06	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 07:06	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
127-18-4	Tetrachloroethylene	10		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-88-3	Toluene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
79-01-6	Trichloroethylene	11		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.85	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	112 %		77-125							
2037-26-5	Surrogate: Toluene-d8	94.2 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	88.5 %		76-130							

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
83-32-9	Acenaphthene	0.0833	J	mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
120-12-7	Anthracene	0.453		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
56-55-3	Benzo(a)anthracene	2.35		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
50-32-8	Benzo(a)pyrene	0.883		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	1.43		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
191-24-2	Benzo(g,h,i)perylene	0.345		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
207-08-9	Benzo(k)fluoranthene	0.876		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
218-01-9	Chrysene	2.17		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
53-70-3	Dibenzo(a,h)anthracene	0.172		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
132-64-9	Dibenzofuran	0.0826	J	mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
206-44-0	Fluoranthene	5.90		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
86-73-7	Fluorene	0.122		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.390		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
85-01-8	Phenanthrene	5.76		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
108-95-2	Phenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
129-00-0	Pyrene	4.95		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	76.0 %									
4165-62-2	Surrogate: Phenol-d5	7.21 %	S-08								
4165-60-0	Surrogate: Nitrobenzene-d5	137 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	78.9 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.7 %									
1718-51-0	Surrogate: Terphenyl-d14	82.1 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	89.6 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	78.7 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:49	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	77.0 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	71.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	4.52		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-39-3	Barium	125		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-41-7	Beryllium	0.337		mg/kg dry	0.111	0.111	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.332	0.332	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-47-3	Chromium	11.6		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-50-8	Copper	26.9		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7439-92-1	Lead	241		mg/kg dry	0.332	0.332	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7439-96-5	Manganese	358		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-02-0	Nickel	9.85		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7782-49-2	Selenium	3.52		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-22-4	Silver	ND		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-66-6	Zinc	41.0		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.54		mg/kg dry	0.0332	0.0332	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 14:01	KV

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	90.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.387	0.553	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	11.6		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.553	0.553	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	0.0050		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.046	0.093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
78-93-3	2-Butanone	0.0023	J	mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
71-43-2	Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
67-66-3	Chloroform	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.0023	0.0093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:03	SS



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:03	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
127-18-4	Tetrachloroethylene	0.12		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-88-3	Toluene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
79-01-6	Trichloroethylene	0.076		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0069	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	102 %		77-125							
2037-26-5	Surrogate: Toluene-d8	96.8 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	91.6 %		76-130							

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
108-95-2	Phenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	79.3 %									
4165-62-2	Surrogate: Phenol-d5	106 %									
4165-60-0	Surrogate: Nitrobenzene-d5	134 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	81.0 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	84.9 %									
1718-51-0	Surrogate: Terphenyl-d14	73.9 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
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255 Randolph Street

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July 14, 2016 3:00 pm

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07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	98.4 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	78.8 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

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July 14, 2016 3:00 pm

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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 18:08	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	80.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	77.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-39-3	Barium	18.0		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-47-3	Chromium	8.60		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-50-8	Copper	11.1		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7439-92-1	Lead	1.66		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7439-96-5	Manganese	292		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-02-0	Nickel	6.75		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7782-49-2	Selenium	2.18		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-22-4	Silver	ND		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-66-6	Zinc	14.5		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0339	0.0339	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 14:13	KV



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.396	0.565	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	8.60		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.565	0.565	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/21/2016 09:01	07/21/2016 15:04	LAB

Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.2		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
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Client Project ID
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July 14, 2016 3:00 pm

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07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	7.0	14	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
67-64-1	Acetone	0.76	SCAL- E, B, J	mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
71-43-2	Benzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
67-66-3	Chloroform	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
156-59-2	cis-1,2-Dichloroethylene	0.54	J	mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.35	1.4	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 08:07	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 08:07	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

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July 14, 2016 3:00 pm

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07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
127-18-4	Tetrachloroethylene	640		mg/kg dry	70	140	20000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 17:51	BK
108-88-3	Toluene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
79-01-6	Trichloroethylene	530		mg/kg dry	70	140	20000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 17:51	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.1	2.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	111 %				77-125					
2037-26-5	Surrogate: Toluene-d8	96.0 %				85-120					
460-00-4	Surrogate: p-Bromofluorobenzene	87.2 %				76-130					

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
120-12-7	Anthracene	0.0807	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
56-55-3	Benzo(a)anthracene	0.503		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
50-32-8	Benzo(a)pyrene	0.476		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
205-99-2	Benzo(b)fluoranthene	0.582		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
191-24-2	Benzo(g,h,i)perylene	0.184		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
207-08-9	Benzo(k)fluoranthene	0.269		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR



Sample Information

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Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
218-01-9	Chrysene	0.557		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
53-70-3	Dibenzo(a,h)anthracene	0.0653	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
206-44-0	Fluoranthene	0.838		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
86-73-7	Fluorene	0.0876	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.172		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
85-01-8	Phenanthrene	0.440		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
108-95-2	Phenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
129-00-0	Pyrene	0.788		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	95.5 %									
4165-62-2	Surrogate: Phenol-d5	104 %									
4165-60-0	Surrogate: Nitrobenzene-d5	138 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	81.2 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	82.6 %									
1718-51-0	Surrogate: Terphenyl-d14	75.1 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC



Sample Information

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Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:53	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	90.7 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	72.6 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 18:28	AMC



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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	73.0 %				30-140					
2051-24-3	Surrogate: Decachlorobiphenyl	83.5 %				30-140					

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	36.6		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-39-3	Barium	936		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-41-7	Beryllium	0.226		mg/kg dry	0.115	0.115	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.346	0.346	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-47-3	Chromium	23.6		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-50-8	Copper	93.9		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7439-92-1	Lead	518		mg/kg dry	0.346	0.346	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7439-96-5	Manganese	165		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-02-0	Nickel	16.0		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7782-49-2	Selenium	6.33		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-22-4	Silver	ND		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-66-6	Zinc	124		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.36		mg/kg dry	0.0346	0.0346	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 14:22	KV

Total Solids

Log-in Notes:

Sample Notes:



Sample Information

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16G0570

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Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	86.8		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.403	0.576	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/21/2016 09:10	07/21/2016 14:07	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	23.6		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.576	0.576	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/21/2016 09:01	07/21/2016 15:04	LAB



Analytical Batch Summary

Batch ID: BG60728

Preparation Method: EPA 3050B

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/18/16
16G0570-02	SB-RI1 @ 10-12'	07/18/16
16G0570-03	SB-RI2 @ 0-2'	07/18/16
16G0570-04	SB-RI2 @ 11-13'	07/18/16
16G0570-05	SB-RI3 @ 0-2'	07/18/16
16G0570-06	SB-RI3 @ 11-13'	07/18/16
16G0570-07	SB-RI4 @ 0-2'	07/18/16
16G0570-08	SB-RI4 @ 11-13'	07/18/16
16G0570-09	Soil Dup @ 0-2'	07/18/16
BG60728-BLK1	Blank	07/18/16
BG60728-DUP1	Duplicate	07/18/16
BG60728-MS1	Matrix Spike	07/18/16
BG60728-SRM1	Reference	07/18/16

Batch ID: BG60767

Preparation Method: EPA 7473 soil

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/19/16
16G0570-02	SB-RI1 @ 10-12'	07/19/16
16G0570-03	SB-RI2 @ 0-2'	07/19/16
16G0570-04	SB-RI2 @ 11-13'	07/19/16
16G0570-05	SB-RI3 @ 0-2'	07/19/16
16G0570-06	SB-RI3 @ 11-13'	07/19/16
16G0570-07	SB-RI4 @ 0-2'	07/19/16
16G0570-08	SB-RI4 @ 11-13'	07/19/16
16G0570-09	Soil Dup @ 0-2'	07/19/16
BG60767-BLK1	Blank	07/19/16
BG60767-DUP1	Duplicate	07/19/16
BG60767-MS1	Matrix Spike	07/19/16
BG60767-SRM1	Reference	07/19/16

Batch ID: BG60910

Preparation Method: EPA 5035A

Prepared By: BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/21/16
16G0570-02	SB-RI1 @ 10-12'	07/21/16
16G0570-03	SB-RI2 @ 0-2'	07/21/16
16G0570-04	SB-RI2 @ 11-13'	07/21/16
16G0570-05	SB-RI3 @ 0-2'	07/21/16
16G0570-06	SB-RI3 @ 11-13'	07/21/16
16G0570-07	SB-RI4 @ 0-2'	07/21/16
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60910-BLK1	Blank	07/21/16
BG60910-BLK2	Blank	07/21/16



BG60910-BS1	LCS	07/21/16
BG60910-BSD1	LCS Dup	07/21/16
BG60910-MS1	Matrix Spike	07/21/16
BG60910-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60920 **Preparation Method:** Analysis Preparation Soil **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60920-BLK1	Blank	07/21/16
BG60920-DUP1	Duplicate	07/21/16
BG60920-MS1	Matrix Spike	07/21/16
BG60920-SRM1	Reference	07/21/16

Batch ID: BG60922 **Preparation Method:** EPA SW846-3060 **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60922-BLK1	Blank	07/21/16
BG60922-DUP1	Duplicate	07/21/16
BG60922-MS1	Matrix Spike	07/21/16
BG60922-SRM1	Reference	07/21/16

Batch ID: BG60953 **Preparation Method:** EPA 3550C **Prepared By:** KNN

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/21/16
16G0570-02	SB-RI1 @ 10-12'	07/21/16
16G0570-03	SB-RI2 @ 0-2'	07/21/16
16G0570-04	SB-RI2 @ 11-13'	07/21/16
16G0570-05	SB-RI3 @ 0-2'	07/21/16
16G0570-06	SB-RI3 @ 11-13'	07/21/16
16G0570-07	SB-RI4 @ 0-2'	07/21/16
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60953-BLK1	Blank	07/21/16
BG60953-BS1	LCS	07/21/16
BG60953-MS1	Matrix Spike	07/21/16
BG60953-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60980 **Preparation Method:** EPA 5035A **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01RE1	SB-RI1 @ 0-2'	07/22/16
16G0570-03RE1	SB-RI2 @ 0-2'	07/22/16
16G0570-04RE1	SB-RI2 @ 11-13'	07/22/16
16G0570-09RE1	Soil Dup @ 0-2'	07/22/16
BG60980-BLK1	Blank	07/22/16



BG60980-BLK2	Blank	07/22/16
BG60980-BS1	LCS	07/22/16
BG60980-BSD1	LCS Dup	07/22/16
BG60980-MS1	Matrix Spike	07/22/16
BG60980-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG60988 **Preparation Method:** Analysis Preparation Soil **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
BG60988-BLK1	Blank	07/22/16
BG60988-DUP1	Duplicate	07/22/16
BG60988-MS1	Matrix Spike	07/22/16
BG60988-SRM1	Reference	07/22/16

Batch ID: BG61015 **Preparation Method:** EPA SW846-3060 **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
BG61015-BLK1	Blank	07/22/16
BG61015-DUP1	Duplicate	07/22/16
BG61015-MS1	Matrix Spike	07/22/16
BG61015-SRM1	Reference	07/22/16

Batch ID: BG61026 **Preparation Method:** % Solids Prep **Prepared By:** TJM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
BG61026-DUP1	Duplicate	07/22/16



Batch ID: BG61029

Preparation Method: EPA 3550C

Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
BG61029-BLK1	Blank	07/22/16
BG61029-BLK2	Blank	07/22/16
BG61029-BS1	LCS	07/22/16
BG61029-BS2	LCS	07/22/16

Batch ID: BG61040

Preparation Method: Analysis Preparation

Prepared By: PAM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Blank (BG60910-BLK1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	0.0050	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	44.1		ug/L	50.0		88.1	77-125				
Surrogate: Toluene-d8	51.0		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	46.0		"	50.0		92.1	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Blank (BG60910-BLK2)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	43.8		ug/L	50.0		87.5	77-125				
Surrogate: Toluene-d8	50.2		"	50.0		100	85-120				
Surrogate: p-Bromofluorobenzene	47.7		"	50.0		95.4	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

LCS (BG60910-BS1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	61		ug/L	50.0		121	71-137				
1,1-Dichloroethane	59		"	50.0		117	75-130				
1,1-Dichloroethylene	57		"	50.0		114	64-137				
1,2,4-Trimethylbenzene	57		"	50.0		115	84-125				
1,2-Dichlorobenzene	54		"	50.0		109	85-122				
1,2-Dichloroethane	58		"	50.0		116	71-133				
1,3,5-Trimethylbenzene	54		"	50.0		107	82-126				
1,3-Dichlorobenzene	53		"	50.0		106	84-124				
1,4-Dichlorobenzene	54		"	50.0		107	84-124				
1,4-Dioxane	2300		"	1000		226	10-228				
2-Butanone	54		"	50.0		108	58-147				
Acetone	52		"	50.0		105	36-155				
Benzene	58		"	50.0		115	77-127				
Carbon tetrachloride	59		"	50.0		117	66-143				
Chlorobenzene	53		"	50.0		107	86-120				
Chloroform	60		"	50.0		120	76-131				
cis-1,2-Dichloroethylene	58		"	50.0		117	74-132				
Ethyl Benzene	57		"	50.0		115	84-125				
Methyl tert-butyl ether (MTBE)	58		"	50.0		117	74-131				
Methylene chloride	58		"	50.0		115	57-141				
Naphthalene	55		"	50.0		110	86-141				
n-Butylbenzene	56		"	50.0		113	80-130				
n-Propylbenzene	54		"	50.0		107	74-136				
o-Xylene	53		"	50.0		106	83-123				
p- & m- Xylenes	110		"	100		110	82-128				
sec-Butylbenzene	54		"	50.0		108	83-125				
tert-Butylbenzene	55		"	50.0		110	80-127				
Tetrachloroethylene	59		"	50.0		117	80-129				
Toluene	56		"	50.0		112	85-121				
trans-1,2-Dichloroethylene	58		"	50.0		116	72-132				
Trichloroethylene	56		"	50.0		112	84-123				
Vinyl Chloride	43		"	50.0		85.8	52-130				
Surrogate: 1,2-Dichloroethane-d4	51.4		"	50.0		103	77-125				
Surrogate: Toluene-d8	50.8		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.7	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

LCS Dup (BG60910-BSD1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	59		ug/L	50.0		119	71-137		1.93	30
1,1-Dichloroethane	57		"	50.0		115	75-130		1.93	30
1,1-Dichloroethylene	50		"	50.0		99.3	64-137		13.7	30
1,2,4-Trimethylbenzene	56		"	50.0		111	84-125		2.96	30
1,2-Dichlorobenzene	53		"	50.0		107	85-122		1.86	30
1,2-Dichloroethane	56		"	50.0		112	71-133		3.38	30
1,3,5-Trimethylbenzene	53		"	50.0		107	82-126		0.468	30
1,3-Dichlorobenzene	53		"	50.0		105	84-124		0.380	30
1,4-Dichlorobenzene	54		"	50.0		107	84-124		0.0373	30
1,4-Dioxane	2400		"	1000		235	10-228	High Bias	4.13	30
2-Butanone	58		"	50.0		117	58-147		8.12	30
Acetone	59		"	50.0		117	36-155		11.3	30
Benzene	58		"	50.0		116	77-127		0.104	30
Carbon tetrachloride	58		"	50.0		117	66-143		0.188	30
Chlorobenzene	53		"	50.0		106	86-120		0.754	30
Chloroform	59		"	50.0		118	76-131		2.18	30
cis-1,2-Dichloroethylene	57		"	50.0		114	74-132		2.55	30
Ethyl Benzene	56		"	50.0		112	84-125		2.57	30
Methyl tert-butyl ether (MTBE)	58		"	50.0		116	74-131		1.08	30
Methylene chloride	56		"	50.0		111	57-141		3.32	30
Naphthalene	55		"	50.0		111	86-141		0.852	30
n-Butylbenzene	56		"	50.0		112	80-130		0.803	30
n-Propylbenzene	54		"	50.0		107	74-136		0.242	30
o-Xylene	54		"	50.0		108	83-123		1.64	30
p- & m- Xylenes	110		"	100		109	82-128		1.26	30
sec-Butylbenzene	53		"	50.0		107	83-125		1.32	30
tert-Butylbenzene	55		"	50.0		109	80-127		0.548	30
Tetrachloroethylene	57		"	50.0		114	80-129		2.42	30
Toluene	56		"	50.0		112	85-121		0.286	30
trans-1,2-Dichloroethylene	59		"	50.0		118	72-132		1.16	30
Trichloroethylene	55		"	50.0		110	84-123		2.43	30
Vinyl Chloride	44		"	50.0		87.8	52-130		2.24	30
Surrogate: 1,2-Dichloroethane-d4	50.6		"	50.0		101	77-125			
Surrogate: Toluene-d8	48.5		"	50.0		97.0	85-120			
Surrogate: p-Bromofluorobenzene	47.4		"	50.0		94.7	76-130			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Matrix Spike (BG60910-MS1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')							Prepared: 07/21/2016 Analyzed: 07/22/2016			
1,1,1-Trichloroethane	82		ug/L	50.0	2200	NR	42-145	Low Bias			
1,1-Dichloroethane	57		"	50.0	ND	114	46-142				
1,1-Dichloroethylene	42		"	50.0	ND	84.4	30-153				
1,2,4-Trimethylbenzene	54		"	50.0	ND	108	10-170				
1,2-Dichlorobenzene	51		"	50.0	ND	102	10-147				
1,2-Dichloroethane	58		"	50.0	ND	116	48-133				
1,3,5-Trimethylbenzene	49		"	50.0	ND	97.6	10-150				
1,3-Dichlorobenzene	52		"	50.0	ND	103	10-144				
1,4-Dichlorobenzene	53		"	50.0	ND	106	10-160				
1,4-Dioxane	2300		"	1000	ND	233	10-191	High Bias			
2-Butanone	57		"	50.0	120	NR	10-189	Low Bias			
Acetone	53		"	50.0	370	NR	10-196	Low Bias			
Benzene	57		"	50.0	ND	113	43-139				
Carbon tetrachloride	60		"	50.0	ND	120	35-145				
Chlorobenzene	51		"	50.0	ND	103	21-154				
Chloroform	58		"	50.0	ND	117	47-142				
cis-1,2-Dichloroethylene	59		"	50.0	ND	118	42-144				
Ethyl Benzene	55		"	50.0	ND	111	11-158				
Methyl tert-butyl ether (MTBE)	56		"	50.0	ND	113	42-152				
Methylene chloride	53		"	50.0	ND	107	28-151				
Naphthalene	53		"	50.0	ND	105	10-158				
n-Butylbenzene	55		"	50.0	ND	110	10-162				
n-Propylbenzene	51		"	50.0	ND	101	10-155				
o-Xylene	53		"	50.0	ND	106	10-158				
p- & m- Xylenes	110		"	100	ND	107	10-156				
sec-Butylbenzene	50		"	50.0	ND	101	10-157				
tert-Butylbenzene	54		"	50.0	ND	107	10-160				
Tetrachloroethylene	920		"	50.0	150000	NR	30-167	Low Bias			
Toluene	53		"	50.0	ND	107	21-160				
trans-1,2-Dichloroethylene	58		"	50.0	ND	116	29-153				
Trichloroethylene	310		"	50.0	34000	NR	24-169	Low Bias			
Vinyl Chloride	46		"	50.0	ND	91.9	12-160				
Surrogate: 1,2-Dichloroethane-d4	54.5		"	50.0		109	77-125				
Surrogate: Toluene-d8	48.9		"	50.0		97.8	85-120				
Surrogate: p-Bromofluorobenzene	48.4		"	50.0		96.9	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Matrix Spike Dup (BG60910-MSD1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')					Prepared: 07/21/2016 Analyzed: 07/22/2016					
1,1,1-Trichloroethane	81		ug/L	50.0	2200	NR	42-145	Low Bias	0.575	30	
1,1-Dichloroethane	58		"	50.0	ND	115	46-142		1.48	36	
1,1-Dichloroethylene	39		"	50.0	ND	77.1	30-153		8.94	31	
1,2,4-Trimethylbenzene	55		"	50.0	ND	111	10-170		2.04	242	
1,2-Dichlorobenzene	53		"	50.0	ND	106	10-147		4.10	52	
1,2-Dichloroethane	58		"	50.0	ND	117	48-133		1.15	32	
1,3,5-Trimethylbenzene	51		"	50.0	ND	102	10-150		4.60	62	
1,3-Dichlorobenzene	52		"	50.0	ND	105	10-144		1.52	51	
1,4-Dichlorobenzene	52		"	50.0	ND	103	10-160		2.73	52	
1,4-Dioxane	2200		"	1000	ND	223	10-191	High Bias	4.42	196	
2-Butanone	56		"	50.0	120	NR	10-189	Low Bias	2.73	67	
Acetone	49		"	50.0	370	NR	10-196	Low Bias	7.94	150	
Benzene	58		"	50.0	ND	116	43-139		1.85	64	
Carbon tetrachloride	60		"	50.0	ND	120	35-145		0.283	31	
Chlorobenzene	52		"	50.0	ND	105	21-154		1.72	32	
Chloroform	59		"	50.0	ND	118	47-142		0.869	29	
cis-1,2-Dichloroethylene	58		"	50.0	ND	115	42-144		2.52	30	
Ethyl Benzene	56		"	50.0	ND	113	11-158		1.81	42	
Methyl tert-butyl ether (MTBE)	57		"	50.0	ND	113	42-152		0.390	47	
Methylene chloride	54		"	50.0	ND	107	28-151		0.804	49	
Naphthalene	54		"	50.0	ND	108	10-158		2.70	95	
n-Butylbenzene	56		"	50.0	ND	112	10-162		2.34	96	
n-Propylbenzene	52		"	50.0	ND	104	10-155		3.09	56	
o-Xylene	54		"	50.0	ND	109	10-158		3.23	51	
p- & m- Xylenes	110		"	100	ND	110	10-156		2.38	47	
sec-Butylbenzene	53		"	50.0	ND	106	10-157		5.06	56	
tert-Butylbenzene	54		"	50.0	ND	109	10-160		1.41	79	
Tetrachloroethylene	970		"	50.0	150000	NR	30-167	Low Bias	4.95	33	
Toluene	53		"	50.0	ND	107	21-160		0.0750	50	
trans-1,2-Dichloroethylene	57		"	50.0	ND	115	29-153		1.35	30	
Trichloroethylene	320		"	50.0	34000	NR	24-169	Low Bias	3.24	30	
Vinyl Chloride	45		"	50.0	ND	89.7	12-160		2.42	35	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	53.5		"	50.0		107	77-125				
<i>Surrogate: Toluene-d8</i>	49.2		"	50.0		98.4	85-120				
<i>Surrogate: p-Bromofluorobenzene</i>	49.3		"	50.0		98.5	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Blank (BG60980-BLK1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	0.0040	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	47.0		ug/L	50.0		94.0	77-125				
Surrogate: Toluene-d8	51.9		"	50.0		104	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.6	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Blank (BG60980-BLK2)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	49.2		ug/L	50.0		98.5	77-125				
Surrogate: Toluene-d8	51.6		"	50.0		103	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.7	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

LCS (BG60980-BS1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	62		ug/L	50.0		124	71-137				
1,1-Dichloroethane	55		"	50.0		110	75-130				
1,1-Dichloroethylene	51		"	50.0		102	64-137				
1,2,4-Trimethylbenzene	59		"	50.0		118	84-125				
1,2-Dichlorobenzene	58		"	50.0		115	85-122				
1,2-Dichloroethane	56		"	50.0		111	71-133				
1,3,5-Trimethylbenzene	59		"	50.0		119	82-126				
1,3-Dichlorobenzene	57		"	50.0		114	84-124				
1,4-Dichlorobenzene	57		"	50.0		114	84-124				
1,4-Dioxane	750		"	1000		75.2	10-228				
2-Butanone	50		"	50.0		99.5	58-147				
Acetone	47		"	50.0		94.6	36-155				
Benzene	57		"	50.0		113	77-127				
Carbon tetrachloride	62		"	50.0		124	66-143				
Chlorobenzene	57		"	50.0		115	86-120				
Chloroform	58		"	50.0		116	76-131				
cis-1,2-Dichloroethylene	56		"	50.0		113	74-132				
Ethyl Benzene	58		"	50.0		116	84-125				
Methyl tert-butyl ether (MTBE)	55		"	50.0		110	74-131				
Methylene chloride	50		"	50.0		99.8	57-141				
Naphthalene	63		"	50.0		126	86-141				
n-Butylbenzene	57		"	50.0		114	80-130				
n-Propylbenzene	56		"	50.0		111	74-136				
o-Xylene	57		"	50.0		113	83-123				
p- & m- Xylenes	110		"	100		111	82-128				
sec-Butylbenzene	55		"	50.0		109	83-125				
tert-Butylbenzene	59		"	50.0		117	80-127				
Tetrachloroethylene	62		"	50.0		124	80-129				
Toluene	58		"	50.0		116	85-121				
trans-1,2-Dichloroethylene	52		"	50.0		103	72-132				
Trichloroethylene	61		"	50.0		123	84-123				
Vinyl Chloride	49		"	50.0		98.6	52-130				
Surrogate: 1,2-Dichloroethane-d4	48.5		"	50.0		97.0	77-125				
Surrogate: Toluene-d8	51.0		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	51.4		"	50.0		103	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

LCS Dup (BG60980-BSD1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	61		ug/L	50.0		122	71-137		1.62	30	
1,1-Dichloroethane	55		"	50.0		110	75-130		0.455	30	
1,1-Dichloroethylene	51		"	50.0		102	64-137		0.0980	30	
1,2,4-Trimethylbenzene	59		"	50.0		118	84-125		0.712	30	
1,2-Dichlorobenzene	57		"	50.0		114	85-122		0.908	30	
1,2-Dichloroethane	54		"	50.0		108	71-133		2.79	30	
1,3,5-Trimethylbenzene	59		"	50.0		119	82-126		0.0168	30	
1,3-Dichlorobenzene	57		"	50.0		114	84-124		0.527	30	
1,4-Dichlorobenzene	57		"	50.0		114	84-124		0.457	30	
1,4-Dioxane	650		"	1000		64.9	10-228		14.6	30	
2-Butanone	44		"	50.0		88.9	58-147		11.3	30	
Acetone	41		"	50.0		82.2	36-155		14.0	30	
Benzene	56		"	50.0		111	77-127		1.98	30	
Carbon tetrachloride	62		"	50.0		124	66-143		0.0161	30	
Chlorobenzene	56		"	50.0		112	86-120		2.28	30	
Chloroform	59		"	50.0		117	76-131		1.32	30	
cis-1,2-Dichloroethylene	59		"	50.0		117	74-132		3.77	30	
Ethyl Benzene	58		"	50.0		115	84-125		0.934	30	
Methyl tert-butyl ether (MTBE)	53		"	50.0		106	74-131		3.22	30	
Methylene chloride	50		"	50.0		100	57-141		0.400	30	
Naphthalene	60		"	50.0		121	86-141		4.20	30	
n-Butylbenzene	57		"	50.0		113	80-130		1.14	30	
n-Propylbenzene	57		"	50.0		115	74-136		3.31	30	
o-Xylene	56		"	50.0		113	83-123		0.372	30	
p- & m- Xylenes	110		"	100		111	82-128		0.180	30	
sec-Butylbenzene	56		"	50.0		111	83-125		1.43	30	
tert-Butylbenzene	59		"	50.0		119	80-127		1.53	30	
Tetrachloroethylene	61		"	50.0		123	80-129		0.682	30	
Toluene	58		"	50.0		117	85-121		0.619	30	
trans-1,2-Dichloroethylene	52		"	50.0		105	72-132		1.54	30	
Trichloroethylene	59		"	50.0		118	84-123		3.69	30	
Vinyl Chloride	49		"	50.0		98.5	52-130		0.102	30	
Surrogate: 1,2-Dichloroethane-d4	46.9		"	50.0		93.8	77-125				
Surrogate: Toluene-d8	50.8		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	53.1		"	50.0		106	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Matrix Spike (BG60980-MS1)	*Source sample: 16G0570-01RE1 (SB-RI1 @ 0-2')							Prepared & Analyzed: 07/22/2016			
1,1,1-Trichloroethane	60		ug/L	50.0	2400	NR	42-145	Low Bias			
1,1-Dichloroethane	51		"	50.0	ND	101	46-142				
1,1-Dichloroethylene	45		"	50.0	ND	89.8	30-153				
1,2,4-Trimethylbenzene	54		"	50.0	ND	109	10-170				
1,2-Dichlorobenzene	54		"	50.0	ND	108	10-147				
1,2-Dichloroethane	52		"	50.0	ND	105	48-133				
1,3,5-Trimethylbenzene	54		"	50.0	ND	108	10-150				
1,3-Dichlorobenzene	53		"	50.0	ND	107	10-144				
1,4-Dichlorobenzene	53		"	50.0	ND	106	10-160				
1,4-Dioxane	740		"	1000	ND	73.8	10-191				
2-Butanone	46		"	50.0	ND	91.0	10-189				
Acetone	41		"	50.0	9000	NR	10-196	Low Bias			
Benzene	52		"	50.0	ND	104	43-139				
Carbon tetrachloride	57		"	50.0	ND	113	35-145				
Chlorobenzene	54		"	50.0	ND	107	21-154				
Chloroform	56		"	50.0	ND	111	47-142				
cis-1,2-Dichloroethylene	54		"	50.0	ND	107	42-144				
Ethyl Benzene	54		"	50.0	ND	108	11-158				
Methyl tert-butyl ether (MTBE)	52		"	50.0	ND	104	42-152				
Methylene chloride	44		"	50.0	ND	88.2	28-151				
Naphthalene	58		"	50.0	ND	116	10-158				
n-Butylbenzene	52		"	50.0	ND	104	10-162				
n-Propylbenzene	53		"	50.0	ND	105	10-155				
o-Xylene	52		"	50.0	ND	105	10-158				
p- & m- Xylenes	110		"	100	ND	107	10-156				
sec-Butylbenzene	52		"	50.0	ND	104	10-157				
tert-Butylbenzene	55		"	50.0	ND	110	10-160				
Tetrachloroethylene	130		"	50.0	150000	NR	30-167	Low Bias			
Toluene	54		"	50.0	ND	109	21-160				
trans-1,2-Dichloroethylene	47		"	50.0	ND	94.5	29-153				
Trichloroethylene	72		"	50.0	34000	NR	24-169	Low Bias			
Vinyl Chloride	38		"	50.0	ND	76.5	12-160				
Surrogate: 1,2-Dichloroethane-d4	48.5		"	50.0		97.0	77-125				
Surrogate: Toluene-d8	51.7		"	50.0		103	85-120				
Surrogate: p-Bromofluorobenzene	51.7		"	50.0		103	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60980 - EPA 5035A											
Matrix Spike Dup (BG60980-MSD1)	*Source sample: 16G0570-01RE1 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
1,1,1-Trichloroethane	58		ug/L	50.0	2400	NR	42-145	Low Bias	3.64	30	
1,1-Dichloroethane	52		"	50.0	ND	103	46-142		1.70	36	
1,1-Dichloroethylene	40		"	50.0	ND	80.4	30-153		11.1	31	
1,2,4-Trimethylbenzene	54		"	50.0	ND	108	10-170		0.516	242	
1,2-Dichlorobenzene	55		"	50.0	ND	110	10-147		1.80	52	
1,2-Dichloroethane	53		"	50.0	ND	105	48-133		0.552	32	
1,3,5-Trimethylbenzene	56		"	50.0	ND	111	10-150		3.23	62	
1,3-Dichlorobenzene	53		"	50.0	ND	107	10-144		0.131	51	
1,4-Dichlorobenzene	53		"	50.0	ND	105	10-160		0.906	52	
1,4-Dioxane	790		"	1000	ND	78.7	10-191		6.48	196	
2-Butanone	45		"	50.0	ND	89.8	10-189		1.35	67	
Acetone	41		"	50.0	9000	NR	10-196	Low Bias	0.539	150	
Benzene	53		"	50.0	ND	107	43-139		2.65	64	
Carbon tetrachloride	58		"	50.0	ND	116	35-145		2.11	31	
Chlorobenzene	54		"	50.0	ND	109	21-154		1.22	32	
Chloroform	57		"	50.0	ND	114	47-142		1.96	29	
cis-1,2-Dichloroethylene	54		"	50.0	ND	107	42-144		0.131	30	
Ethyl Benzene	55		"	50.0	ND	109	11-158		1.22	42	
Methyl tert-butyl ether (MTBE)	51		"	50.0	ND	103	42-152		0.581	47	
Methylene chloride	45		"	50.0	ND	90.7	28-151		2.75	49	
Naphthalene	61		"	50.0	ND	121	10-158		4.16	95	
n-Butylbenzene	53		"	50.0	ND	105	10-162		0.956	96	
n-Propylbenzene	52		"	50.0	ND	104	10-155		1.28	56	
o-Xylene	53		"	50.0	ND	107	10-158		1.72	51	
p- & m- Xylenes	100		"	100	ND	105	10-156		2.46	47	
sec-Butylbenzene	52		"	50.0	ND	103	10-157		0.889	56	
tert-Butylbenzene	55		"	50.0	ND	110	10-160		0.0729	79	
Tetrachloroethylene	130		"	50.0	150000	NR	30-167	Low Bias	1.17	33	
Toluene	55		"	50.0	ND	110	21-160		0.751	50	
trans-1,2-Dichloroethylene	47		"	50.0	ND	94.8	29-153		0.338	30	
Trichloroethylene	71		"	50.0	34000	NR	24-169	Low Bias	1.36	30	
Vinyl Chloride	25		"	50.0	ND	50.0	12-160		41.9	35	Non-dir.
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>51.0</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>77-125</i>				
<i>Surrogate: Toluene-d8</i>	<i>51.2</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>85-120</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>51.2</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>70-130</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Blank (BG60953-BLK1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

2-Methylphenol	ND	0.0417	mg/kg wet								
3- & 4-Methylphenols	ND	0.0417	"								
Acenaphthene	ND	0.0417	"								
Acenaphthylene	ND	0.0417	"								
Anthracene	ND	0.0417	"								
Benzo(a)anthracene	ND	0.0417	"								
Benzo(a)pyrene	ND	0.0417	"								
Benzo(b)fluoranthene	ND	0.0417	"								
Benzo(g,h,i)perylene	ND	0.0417	"								
Benzo(k)fluoranthene	ND	0.0417	"								
Chrysene	ND	0.0417	"								
Dibenzo(a,h)anthracene	ND	0.0417	"								
Dibenzofuran	ND	0.0417	"								
Fluoranthene	ND	0.0417	"								
Fluorene	ND	0.0417	"								
Hexachlorobenzene	ND	0.0417	"								
Indeno(1,2,3-cd)pyrene	ND	0.0417	"								
Naphthalene	ND	0.0417	"								
Pentachlorophenol	ND	0.0417	"								
Phenanthrene	ND	0.0417	"								
Phenol	ND	0.0417	"								
Pyrene	ND	0.0417	"								
Surrogate: 2-Fluorophenol	2.15		"	2.51		85.6	20-108				
Surrogate: Phenol-d5	2.50		"	2.51		99.9	23-114				
Surrogate: Nitrobenzene-d5	2.07		"	1.67		123	22-108				
Surrogate: 2-Fluorobiphenyl	1.30		"	1.67		77.8	21-113				
Surrogate: 2,4,6-Tribromophenol	1.80		"	2.51		72.0	19-110				
Surrogate: Terphenyl-d14	1.15		"	1.67		69.0	24-116				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

LCS (BG60953-BS1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

2-Methylphenol	1.08	0.0417	mg/kg wet	1.67		64.7	10-146				
3- & 4-Methylphenols	1.02	0.0417	"	1.67		61.0	20-109				
Acenaphthene	0.870	0.0417	"	1.67		52.2	17-124				
Acenaphthylene	0.857	0.0417	"	1.67		51.4	16-124				
Anthracene	0.984	0.0417	"	1.67		59.1	24-124				
Benzo(a)anthracene	1.03	0.0417	"	1.67		62.1	25-134				
Benzo(a)pyrene	1.01	0.0417	"	1.67		60.3	29-144				
Benzo(b)fluoranthene	0.807	0.0417	"	1.67		48.4	20-151				
Benzo(g,h,i)perylene	0.962	0.0417	"	1.67		57.7	10-153				
Benzo(k)fluoranthene	1.13	0.0417	"	1.67		68.0	10-148				
Chrysene	0.928	0.0417	"	1.67		55.7	24-116				
Dibenzo(a,h)anthracene	0.915	0.0417	"	1.67		54.9	17-147				
Dibenzofuran	0.824	0.0417	"	1.67		49.4	23-123				
Fluoranthene	1.00	0.0417	"	1.67		60.3	36-125				
Fluorene	0.984	0.0417	"	1.67		59.0	16-130				
Hexachlorobenzene	1.29	0.0417	"	1.67		77.4	10-129				
Indeno(1,2,3-cd)pyrene	0.957	0.0417	"	1.67		57.4	10-155				
Naphthalene	0.886	0.0417	"	1.67		53.2	20-121				
Pentachlorophenol	0.487	0.0417	"	1.67		29.2	10-143				
Phenanthrene	1.02	0.0417	"	1.67		61.2	24-123				
Phenol	1.10	0.0417	"	1.67		66.0	15-123				
Pyrene	1.03	0.0417	"	1.67		61.8	24-132				
<i>Surrogate: 2-Fluorophenol</i>	<i>1.64</i>		<i>"</i>	<i>2.51</i>		<i>65.2</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>2.12</i>		<i>"</i>	<i>2.51</i>		<i>84.6</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.61</i>		<i>"</i>	<i>1.67</i>		<i>96.3</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.936</i>		<i>"</i>	<i>1.67</i>		<i>56.0</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>1.53</i>		<i>"</i>	<i>2.51</i>		<i>61.0</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.892</i>		<i>"</i>	<i>1.67</i>		<i>53.3</i>	<i>24-116</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Matrix Spike (BG60953-MS1)		*Source sample: 16G0570-01 (SB-R11 @ 0-2')					Prepared: 07/21/2016 Analyzed: 07/22/2016				
2-Methylphenol	0.783	0.434	mg/kg dry	1.73	ND	45.2	10-160				
3- & 4-Methylphenols	0.631	0.434	"	1.73	ND	36.4	16-115				
Acenaphthene	0.658	0.434	"	1.73	ND	38.0	13-133				
Acenaphthylene	0.683	0.434	"	1.73	ND	39.4	25-125				
Anthracene	0.728	0.434	"	1.73	ND	42.0	27-128				
Benzo(a)anthracene	0.631	0.434	"	1.73	ND	36.4	20-147				
Benzo(a)pyrene	0.378	0.434	"	1.73	ND	21.8	18-153				
Benzo(b)fluoranthene	0.437	0.434	"	1.73	ND	25.2	10-163				
Benzo(g,h,i)perylene	0.308	0.434	"	1.73	ND	17.8	10-157				
Benzo(k)fluoranthene	0.561	0.434	"	1.73	ND	32.4	10-157				
Chrysene	1.05	0.434	"	1.73	ND	60.6	18-133				
Dibenzo(a,h)anthracene	0.284	0.434	"	1.73	ND	16.4	10-146				
Dibenzofuran	0.631	0.434	"	1.73	ND	36.4	26-134				
Fluoranthene	1.07	0.434	"	1.73	0.187	61.8	10-155				
Fluorene	1.01	0.434	"	1.73	ND	58.0	12-150				
Hexachlorobenzene	1.08	0.434	"	1.73	ND	62.4	16-142				
Indeno(1,2,3-cd)pyrene	0.302	0.434	"	1.73	ND	17.4	10-155				
Naphthalene	0.710	0.434	"	1.73	ND	41.0	15-132				
Pentachlorophenol	ND	0.434	"	1.73	ND		10-160	Low Bias			
Phenanthrene	0.925	0.434	"	1.73	ND	53.4	10-151				
Phenol	0.825	0.434	"	1.73	ND	47.6	11-124				
Pyrene	1.05	0.434	"	1.73	0.177	60.4	13-148				
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Surrogate: 2-Fluorophenol	0.749		"	2.61		28.6	20-108				
Surrogate: Phenol-d5	1.55		"	2.61		59.6	23-114				
Surrogate: Nitrobenzene-d5	1.63		"	1.74		93.8	22-108				
Surrogate: 2-Fluorobiphenyl	0.801		"	1.74		46.0	21-113				
Surrogate: 2,4,6-Tribromophenol	1.21		"	2.61		46.3	30-130				
Surrogate: Terphenyl-d14	0.710		"	1.74		40.8	24-116				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Matrix Spike Dup (BG60953-MSD1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')						Prepared: 07/21/2016 Analyzed: 07/22/2016				
2-Methylphenol	0.797	0.434	mg/kg dry	1.73	ND	46.0	10-160		1.75	30	
3- & 4-Methylphenols	0.617	0.434	"	1.73	ND	35.6	16-115		2.22	30	
Acenaphthene	0.634	0.434	"	1.73	ND	36.6	13-133		3.75	30	
Acenaphthylene	0.624	0.434	"	1.73	ND	36.0	25-125		9.02	30	
Anthracene	0.610	0.434	"	1.73	ND	35.2	27-128		17.6	30	
Benzo(a)anthracene	0.496	0.434	"	1.73	ND	28.6	20-147		24.0	30	
Benzo(a)pyrene	0.302	0.434	"	1.73	ND	17.4	18-153	Low Bias	22.4	30	
Benzo(b)fluoranthene	0.392	0.434	"	1.73	ND	22.6	10-163		10.9	30	
Benzo(g,h,i)perylene	0.402	0.434	"	1.73	ND	23.2	10-157		26.3	30	
Benzo(k)fluoranthene	0.482	0.434	"	1.73	ND	27.8	10-157		15.3	30	
Chrysene	0.950	0.434	"	1.73	ND	54.8	18-133		10.1	30	
Dibenzo(a,h)anthracene	0.267	0.434	"	1.73	ND	15.4	10-146		6.29	30	
Dibenzofuran	0.575	0.434	"	1.73	ND	33.2	26-134		9.20	30	
Fluoranthene	0.804	0.434	"	1.73	0.187	46.4	10-155		28.5	30	
Fluorene	0.984	0.434	"	1.73	ND	56.8	12-150		2.09	30	
Hexachlorobenzene	0.995	0.434	"	1.73	ND	57.4	16-142		8.35	30	
Indeno(1,2,3-cd)pyrene	0.243	0.434	"	1.73	ND	14.0	10-155		21.7	30	
Naphthalene	0.669	0.434	"	1.73	ND	38.6	15-132		6.03	30	
Pentachlorophenol	ND	0.434	"	1.73	ND		10-160	Low Bias		30	
Phenanthrene	0.787	0.434	"	1.73	ND	45.4	10-151		16.2	30	
Phenol	0.769	0.434	"	1.73	ND	44.4	11-124		6.96	30	
Pyrene	0.769	0.434	"	1.73	0.177	44.4	13-148		30.5	30	Non-dir.
<i>Surrogate: 2-Fluorophenol</i>	<i>0.873</i>		<i>"</i>	<i>2.61</i>		<i>33.4</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>1.49</i>		<i>"</i>	<i>2.61</i>		<i>57.2</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.42</i>		<i>"</i>	<i>1.74</i>		<i>81.7</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.697</i>		<i>"</i>	<i>1.74</i>		<i>40.0</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>1.03</i>		<i>"</i>	<i>2.61</i>		<i>39.5</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.624</i>		<i>"</i>	<i>1.74</i>		<i>35.9</i>	<i>24-116</i>				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61029 - EPA 3550C

Blank (BG61029-BLK1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

4,4'-DDD	ND	0.000330	mg/kg wet
4,4'-DDE	ND	0.000330	"
4,4'-DDT	ND	0.000330	"
Aldrin	ND	0.000330	"
alpha-BHC	ND	0.000330	"
alpha-Chlordane	ND	0.000330	"
beta-BHC	ND	0.000330	"
delta-BHC	ND	0.000330	"
Dieldrin	ND	0.000330	"
Endosulfan I	ND	0.000330	"
Endosulfan II	ND	0.000330	"
Endosulfan sulfate	ND	0.000330	"
Endrin	ND	0.000330	"
gamma-BHC (Lindane)	ND	0.000330	"
Heptachlor	ND	0.000330	"

Surrogate: Decachlorobiphenyl

0.0501

"

0.0667

75.1

30-150

Surrogate: Tetrachloro-m-xylene

0.0429

"

0.0667

64.4

30-150

LCS (BG61029-BS1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

4,4'-DDD	0.0238	0.000330	mg/kg wet	0.0333	71.5	40-140
4,4'-DDE	0.0213	0.000330	"	0.0333	63.8	40-140
4,4'-DDT	0.0272	0.000330	"	0.0333	81.7	40-140
Aldrin	0.0234	0.000330	"	0.0333	70.3	40-140
alpha-BHC	0.0264	0.000330	"	0.0333	79.1	40-140
alpha-Chlordane	0.0229	0.000330	"	0.0333	68.6	40-140
beta-BHC	0.0249	0.000330	"	0.0333	74.7	40-140
delta-BHC	0.0256	0.000330	"	0.0333	76.7	40-140
Dieldrin	0.0246	0.000330	"	0.0333	73.7	40-140
Endosulfan I	0.0247	0.000330	"	0.0333	74.1	40-140
Endosulfan II	0.0269	0.000330	"	0.0333	80.6	40-140
Endosulfan sulfate	0.0272	0.000330	"	0.0333	81.7	40-140
Endrin	0.0262	0.000330	"	0.0333	78.5	40-140
gamma-BHC (Lindane)	0.0250	0.000330	"	0.0333	74.9	40-140
Heptachlor	0.0223	0.000330	"	0.0333	66.9	40-140

Surrogate: Decachlorobiphenyl

0.0452

"

0.0667

67.8

30-150

Surrogate: Tetrachloro-m-xylene

0.0397

"

0.0667

59.5

30-150



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch Y6G2531 - BG60939

Performance Mix (Y6G2531-PEM1)

Prepared & Analyzed: 07/24/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.265		"	0.00			0-200			
4,4'-DDT	119		"	200		59.3	0-200			
Endrin	74.9		"	100		74.9	0-200			

Performance Mix (Y6G2531-PEM2)

Prepared: 07/24/2016 Analyzed: 07/25/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.478		"	0.00			0-200			
4,4'-DDT	156		"	200		78.1	0-200			
Endrin	103		"	100		103	0-200			



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61029 - EPA 3550C

Blank (BG61029-BLK2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

Aroclor 1016	ND	0.0167	mg/kg wet								
Aroclor 1221	ND	0.0167	"								
Aroclor 1232	ND	0.0167	"								
Aroclor 1242	ND	0.0167	"								
Aroclor 1248	ND	0.0167	"								
Aroclor 1254	ND	0.0167	"								
Aroclor 1260	ND	0.0167	"								
Total PCBs	ND	0.0167	"								

Surrogate: Tetrachloro-m-xylene	0.0373		"	0.0667		56.0	30-140				
Surrogate: Decachlorobiphenyl	0.0523		"	0.0667		78.5	30-140				

LCS (BG61029-BS2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

Aroclor 1016	0.195	0.0167	mg/kg wet	0.333		58.5	40-130				
Aroclor 1260	0.196	0.0167	"	0.333		58.9	40-130				
Surrogate: Tetrachloro-m-xylene	0.0377		"	0.0667		56.5	30-140				
Surrogate: Decachlorobiphenyl	0.0580		"	0.0667		87.0	30-140				



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60728 - EPA 3050B

Blank (BG60728-BLK1)

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	ND	1.00	mg/kg wet
Barium	ND	1.00	"
Beryllium	ND	0.100	"
Cadmium	ND	0.300	"
Chromium	ND	0.500	"
Copper	ND	0.500	"
Lead	ND	0.300	"
Manganese	ND	0.500	"
Nickel	ND	0.500	"
Selenium	ND	1.00	"
Silver	ND	0.500	"
Zinc	ND	1.00	"

Duplicate (BG60728-DUP1)

*Source sample: 16G0570-01 (SB-RI1 @ 0-2')

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	3.16	1.04	mg/kg dry	2.58	20.2	35
Barium	34.4	1.04	"	34.6	0.573	35
Beryllium	ND	0.104	"	ND		35
Cadmium	ND	0.312	"	ND		35
Chromium	10.3	0.520	"	10.4	0.891	35
Copper	23.8	0.520	"	25.3	5.82	35
Lead	36.2	0.312	"	36.3	0.159	35
Manganese	156	0.520	"	156	0.0868	35
Nickel	9.44	0.520	"	9.54	1.04	35
Selenium	1.23	1.04	"	ND		35
Silver	ND	0.520	"	ND		35
Zinc	31.9	1.04	"	32.2	1.08	35

Matrix Spike (BG60728-MS1)

*Source sample: 16G0570-01 (SB-RI1 @ 0-2')

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	203	1.04	mg/kg dry	208	2.58	96.4	75-125
Barium	232	1.04	"	208	34.6	95.1	75-125
Beryllium	5.02	0.104	"	5.20	ND	96.6	75-125
Cadmium	4.88	0.312	"	5.20	ND	93.9	75-125
Chromium	29.8	0.520	"	20.8	10.4	92.9	75-125
Copper	52.0	0.520	"	26.0	25.3	103	75-125
Lead	85.2	0.312	"	52.0	36.3	94.1	75-125
Manganese	216	0.520	"	52.0	156	115	75-125
Nickel	61.9	0.520	"	52.0	9.54	101	75-125
Silver	2.81	0.520	"	5.20	ND	54.1	75-125
Zinc	77.9	1.04	"	52.0	32.2	87.8	75-125

Low Bias



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60728 - EPA 3050B

Reference (BG60728-SRM1)

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	101	1.00	mg/kg wet	113		89.4	69.7-142.5				
Barium	140	1.00	"	155		90.0	72.9-127.1				
Beryllium	96.4	0.100	"	109		88.4	74.7-124.8				
Cadmium	57.7	0.300	"	67.5		85.4	73.2-126.8				
Chromium	145	0.500	"	164		88.6	70.7-129.9				
Copper	120	0.500	"	128		94.0	75.2-125.8				
Lead	79.0	0.300	"	90.1		87.7	70.1-129.9				
Manganese	332	0.500	"	363		91.6	75.8-124.5				
Nickel	91.0	0.500	"	89.3		102	72-127.7				
Selenium	139	1.00	"	156		88.8	67.3-132.1				
Silver	19.2	0.500	"	52.6		36.5	66.7-133.5	Low Bias			
Zinc	137	1.00	"	168		81.5	69-131.5				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	Limit	Flag
Batch BG60767 - EPA 7473 soil											
Blank (BG60767-BLK1)								Prepared & Analyzed: 07/19/2016			
Mercury	ND	0.0300	mg/kg wet								
Duplicate (BG60767-DUP1)								Prepared & Analyzed: 07/19/2016			
Mercury	0.164	0.0312	mg/kg dry		0.162				1.34	35	
Matrix Spike (BG60767-MS1)								Prepared & Analyzed: 07/19/2016			
Mercury	0.750		mg/kg	0.500	0.156	119	75-125				
Reference (BG60767-SRM1)								Prepared & Analyzed: 07/19/2016			
Mercury	6.1801		mg/kg	5.76		107	71.2-129				



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61026 - % Solids Prep

Duplicate (BG61026-DUP1)		*Source sample: 16G0570-01 (SB-R11 @ 0-2')						Prepared & Analyzed: 07/22/2016			
% Solids	94.7	0.100	%		96.2				1.53	20	



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60920 - Analysis Preparation Soil											
Blank (BG60920-BLK1)						Prepared & Analyzed: 07/21/2016					
Cyanide, total	ND	0.500	mg/kg wet								
Duplicate (BG60920-DUP1)						*Source sample: 16G0570-08 (SB-RI4 @ 11-13') Prepared & Analyzed: 07/21/2016					
Cyanide, total	ND	0.565	mg/kg dry		ND					15	
Matrix Spike (BG60920-MS1)						*Source sample: 16G0570-08 (SB-RI4 @ 11-13') Prepared & Analyzed: 07/21/2016					
Cyanide, total	8.93	0.565	mg/kg dry	11.3	ND	79.0	79.6-107	Low Bias			
Reference (BG60920-SRM1)						Prepared & Analyzed: 07/21/2016					
Cyanide, total	43.0		ug/mL	53.9		79.8	37.5-163.7				
Batch BG60922 - EPA SW846-3060											
Blank (BG60922-BLK1)						Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	ND	0.500	mg/kg wet								
Duplicate (BG60922-DUP1)						*Source sample: 16G0570-09 (Soil Dup @ 0-2') Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	ND	0.576	mg/kg dry		ND					35	
Matrix Spike (BG60922-MS1)						*Source sample: 16G0570-09 (Soil Dup @ 0-2') Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	12.2	0.576	mg/kg dry	23.1	ND	53.0	75-125	Low Bias			
Reference (BG60922-SRM1)						Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	71.0		mg/L	108		65.7	29.8-206				
Batch BG60988 - Analysis Preparation Soil											
Blank (BG60988-BLK1)						Prepared & Analyzed: 07/22/2016					
Cyanide, total	ND	0.500	mg/kg wet								



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60988 - Analysis Preparation Soil

Duplicate (BG60988-DUP1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Cyanide, total	ND	0.520	mg/kg dry		ND					15	
Matrix Spike (BG60988-MS1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Cyanide, total	7.95	0.520	mg/kg dry	10.4	ND	76.5	79.6-107	Low Bias			
Reference (BG60988-SRM1)							Prepared & Analyzed: 07/22/2016				
Cyanide, total	59.5		ug/mL	53.9		110	37.5-163.7				

Batch BG61015 - EPA SW846-3060

Blank (BG61015-BLK1)							Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	ND	0.500	mg/kg wet								
Duplicate (BG61015-DUP1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	ND	0.520	mg/kg dry		ND					35	
Matrix Spike (BG61015-MS1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	17.5	0.520	mg/kg dry	20.8	ND	84.0	75-125				
Reference (BG61015-SRM1)							Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	79.6		mg/L	108		73.7	29.8-206				



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16G0570-01	SB-RI1 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-02	SB-RI1 @ 10-12'	40mL Vial with Stir Bar-Cool 4° C
16G0570-03	SB-RI2 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-04	SB-RI2 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-05	SB-RI3 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-06	SB-RI3 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-07	SB-RI4 @ 0-2	40mL Vial with Stir Bar-Cool 4° C
16G0570-08	SB-RI4 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-09	Soil Dup @ 0-2'	40mL Vial with Stir Bar-Cool 4° C



Notes and Definitions

S-HI	Surrogate recovery is above acceptance limits. No target compound is detected in sample.
SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
S-08	The recovery of this surrogate was outside of QC limits.
QR-04	The RPD exceeded control limits for the LCS/LCSD QC.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-MISpk	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The SRM was within acceptance limits, therefore data are acceptable.
M-LSRD	Original sample conc <50 X reporting limit.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
IS-08	Recovery of this internal standard was outside QC limits.
IS-06	Internal standard perylene-d12 did not meet acceptance criteria. The sample was reanalyzed to confirm matrix interference. Compounds affected are: Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
<hr/>	
*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.



High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.

For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

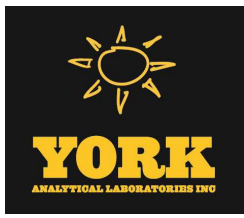
For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested. Your signature binds you to York's Std. Terms & Conditions.

York Project No. 166057G

YOUR Information		Report To:		Invoice To:		YOUR Project ID		Turn-Around Time		Report Type	
Company: <u>Lavrel Env. Ass.</u>	Company: <u>Scott</u>	Company: <u>Kathy</u>		Company: <u>255 Randolph St</u>		Summary Report		RUSH - Same Day		Summary Report	
Address: <u>53 West Hills Rd.</u>	Address: <u>Scott</u>	Address: <u>Scott</u>		Address: <u>Scott</u>		CT RCP Package		RUSH - Next Day		Summary w/ QA Summary	
Phone No. <u>631 673 0612</u>	Phone No. <u>Scott</u>	Phone No. <u>Scott</u>		Phone No. <u>Scott</u>		NY ASP A Package		RUSH - Two Day		CT RCP Package	
Contact Person: <u>Scott</u>	Attention: <u>Scott</u>	Attention: <u>Scott</u>		Attention: <u>Scott</u>		NY ASP B Package		RUSH - Three Day		NY ASP A Package	
E-Mail Address: <u>labresults@lavrelenr.com</u>	E-Mail Address: <u>Scott</u>	E-Mail Address: <u>Scott</u>		E-Mail Address: <u>Scott</u>		NJDEP Red. Deliv.		RUSH - Four Day		NJDEP Red. Deliv.	
Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.		Samples Collected/Authorized By (Signature)		Samples Relinquished By		Purchase Order No.		Standard (5-7 Days)		Electronic Data Deliverables (EDD)	
<u>Albert Klm.</u>		<u>Albert Klm.</u>		<u>Albert Klm.</u>		Samples from: CT NY NJ		Misc. Org.		Simple Excel	
Name (printed)		Name (printed)		Name (printed)		Volatiles		Full Lists		NYSDEC EQuIS	
Matrix Codes		Matrix Codes		Matrix Codes		Semi-Vols.		Full Lists		EQuIS (std)	
S - soil		S - soil		S - soil		8270 or 625		Full Lists		EZ-EDD (EQuIS)	
Other - specify (oil, etc.)		Other - specify (oil, etc.)		Other - specify (oil, etc.)		STARS list		Full Lists		NJDEP SRP HazSite EDD	
WW - wastewater		WW - wastewater		WW - wastewater		BN Only		Full Lists		GIS/KEY (std)	
GW - groundwater		GW - groundwater		GW - groundwater		Acids Only		Full Lists		Other	
DW - drinking water		DW - drinking water		DW - drinking water		PAH list		Full Lists		York Regulatory Comparison	
Air-A - ambient air		Air-A - ambient air		Air-A - ambient air		Ketones		Full Lists		Excel Spreadsheet	
Air-SV - soil vapor		Air-SV - soil vapor		Air-SV - soil vapor		Oxygenates		Full Lists		Compare to the following Regs. (please fill in):	
Sample Identification		Sample Identification		Sample Identification		TCL list		Full Lists			
Date/Time Sampled		Date/Time Sampled		Date/Time Sampled		TAGM list		Full Lists			
SB-R11@ 0-2'		SB-R11@ 0-2'		SB-R11@ 0-2'		CT RCP list		Full Lists			
SB-R11@ 10-12'		SB-R11@ 10-12'		SB-R11@ 10-12'		TCL list		Full Lists			
SB-R12@ 0-2'		SB-R12@ 0-2'		SB-R12@ 0-2'		Arom. only		Full Lists			
SB-R12@ 11-13'		SB-R12@ 11-13'		SB-R12@ 11-13'		Halog. only		Full Lists			
SB-R13@ 0-2'		SB-R13@ 0-2'		SB-R13@ 0-2'		App. IX		Full Lists			
SB-R13@ 11-13'		SB-R13@ 11-13'		SB-R13@ 11-13'		App. IX		Full Lists			
SB-R14@ 0-2'		SB-R14@ 0-2'		SB-R14@ 0-2'		SPL or TCLP		Full Lists			
Soil Drape @ 0-2'		Soil Drape @ 0-2'		Soil Drape @ 0-2'		SPL or TCLP		Full Lists			
Comments		Comments		Comments		8021B list		Full Lists			
Choose Analyses Needed from the Menu Above and Enter Below		Choose Analyses Needed from the Menu Above and Enter Below		Choose Analyses Needed from the Menu Above and Enter Below		Preservation		Full Lists			
TCLVOC, TCLSVOC, TCL PCB, TAL Metals		TCLVOC, TCLSVOC, TCL PCB, TAL Metals		TCLVOC, TCLSVOC, TCL PCB, TAL Metals		Check those Applicable		Full Lists			
Cr+6, & Cyanide Pesticides		Cr+6, & Cyanide Pesticides		Cr+6, & Cyanide Pesticides		Special Instructions		Full Lists			
5 containers		5 containers		5 containers		Field Filtered		Full Lists			
5 containers		5 containers		5 containers		Lab to Filter		Full Lists			
Temperature on Receipt		Temperature on Receipt		Temperature on Receipt		4°C		Full Lists			
4.0 °C		4.0 °C		4.0 °C		Frozen		Full Lists			
Date/Time		Date/Time		Date/Time		HCl		Full Lists			
7/15/16 1230		7/15/16 1230		7/15/16 1230		ZnAc		Full Lists			
7/15/16 1640		7/15/16 1640		7/15/16 1640		MeOH		Full Lists			
Date/Time		Date/Time		Date/Time		Ascorbic Acid		Full Lists			
7/15/16 1640		7/15/16 1640		7/15/16 1640		Other		Full Lists			
Date/Time		Date/Time		Date/Time		HNO ₃		Full Lists			
7/15/16 1640		7/15/16 1640		7/15/16 1640		NaOH		Full Lists			
Date/Time		Date/Time		Date/Time		Other		Full Lists			
7/15/16 1640		7/15/16 1640		7/15/16 1640		Other		Full Lists			



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0638

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0638

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 18, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0638-01	MW-1	Water	07/18/2016	07/18/2016
16G0638-02	MW-2	Water	07/18/2016	07/18/2016
16G0638-03	MW-3	Water	07/18/2016	07/18/2016
16G0638-04	MW-4	Water	07/18/2016	07/18/2016
16G0638-05	Equipment Blank	Water	07/18/2016	07/18/2016
16G0638-06	GW Dupe	Water	07/18/2016	07/18/2016
16G0638-07	Trip Blank	Water	07/18/2016	07/18/2016

General Notes for York Project (SDG) No.: 16G0638

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/25/2016





Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	65		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-34-3	1,1-Dichloroethane	0.59		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-35-4	1,1-Dichloroethylene	1.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
107-06-2	1,2-Dichloroethane	0.59	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
108-90-7	Chlorobenzene	0.43	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
67-66-3	Chloroform	1.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
156-59-2	cis-1,2-Dichloroethylene	5.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 18:42	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 18:42	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
127-18-4	Tetrachloroethylene	1700		ug/L	10	25	50	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:04	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
79-01-6	Trichloroethylene	790		ug/L	10	25	50	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:04	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	94.8 %	69-130								
2037-26-5	Surrogate: Toluene-d8	91.8 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	109 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
83-32-9	Acenaphthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
120-12-7	Anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
218-01-9	Chrysene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
132-64-9	Dibenzofuran	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
206-44-0	Fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
86-73-7	Fluorene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0229	0.0229	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
91-20-3	Naphthalene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
85-01-8	Phenanthrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
108-95-2	Phenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
129-00-0	Pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
Surrogate Recoveries		Result			Acceptance Range						
367-12-4	Surrogate: 2-Fluorophenol	26.4 %			12-64						
4165-62-2	Surrogate: Phenol-d5	16.9 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	84.4 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	74.2 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	106 %	S-08		15-104						
1718-51-0	Surrogate: Terphenyl-d14	58.1 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

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Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-55-9	4,4'-DDE	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
309-00-2	Aldrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-85-7	beta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-86-8	delta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
60-57-1	Dieldrin	ND		ug/L	0.00235	0.00235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
72-20-8	Endrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
76-44-8	Heptachlor	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	72.0 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	55.6 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11097-69-1	Aroclor 1254	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:17	AMC
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	66.0 %			30-120						
2051-24-3	Surrogate: Decachlorobiphenyl	96.5 %			30-120						

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-39-3	Barium	58		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-50-8	Copper	18		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7439-96-5	Manganese	187		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-66-6	Zinc	25		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

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Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	0.060		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-50-8	Copper	0.046		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7439-96-5	Manganese	0.207		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-66-6	Zinc	0.037		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0638

255 Randolph Street

Water

July 18, 2016 1:00 pm

07/18/2016

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0638

255 Randolph Street

Water

July 18, 2016 1:00 pm

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.7		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-34-3	1,1-Dichloroethane	0.27	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
107-06-2	1,2-Dichloroethane	0.62	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
56-23-5	Carbon tetrachloride	2.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
67-66-3	Chloroform	1.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
156-59-2	cis-1,2-Dichloroethylene	1.6		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:08	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:08	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
127-18-4	Tetrachloroethylene	150		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
79-01-6	Trichloroethylene	89		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	95.0 %	69-130
2037-26-5	Surrogate: Toluene-d8	92.5 %	81-117
460-00-4	Surrogate: p-Bromofluorobenzene	109 %	79-122



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
83-32-9	Acenaphthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
120-12-7	Anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
218-01-9	Chrysene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
132-64-9	Dibenzofuran	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
206-44-0	Fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
86-73-7	Fluorene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0229	0.0229	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
91-20-3	Naphthalene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
85-01-8	Phenanthrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
108-95-2	Phenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
129-00-0	Pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	18.5 %	12-64								



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	12.0 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	62.3 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	61.9 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	98.3 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	59.5 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
60-57-1	Dieldrin	ND		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	76.1 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	64.4 %	30-150								



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:36	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	77.5 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-120								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-39-3	Barium	41		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-50-8	Copper	27		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7439-96-5	Manganese	232		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-66-6	Zinc	41		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-39-3	Barium	0.043		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-50-8	Copper	0.025		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7439-96-5	Manganese	0.221		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-66-6	Zinc	0.029		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	1.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-34-3	1,1-Dichloroethane	1.9		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-35-4	1,1-Dichloroethylene	4.7		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-50-1	1,2-Dichlorobenzene	0.50		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
107-06-2	1,2-Dichloroethane	0.61	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
67-66-3	Chloroform	0.62		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
156-59-2	cis-1,2-Dichloroethylene	230		ug/L	2.0	5.0	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:32	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:34	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:34	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	540		ug/L	2.0	5.0	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:32	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
156-60-5	trans-1,2-Dichloroethylene	6.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
79-01-6	Trichloroethylene	70		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	94.3 %	69-130								
2037-26-5	Surrogate: Toluene-d8	91.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	110 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
83-32-9	Acenaphthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
120-12-7	Anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
218-01-9	Chrysene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
206-44-0	Fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
86-73-7	Fluorene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0235	0.0235	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
91-20-3	Naphthalene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.294	0.294	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
85-01-8	Phenanthrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
108-95-2	Phenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
129-00-0	Pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	23.2 %	12-64								
4165-62-2	Surrogate: Phenol-d5	15.1 %	10-82								
4165-60-0	Surrogate: Nitrobenzene-d5	71.1 %	12-96								
321-60-8	Surrogate: 2-Fluorobiphenyl	66.2 %	16-84								
118-79-6	Surrogate: 2,4,6-Tribromophenol	98.2 %	15-104								
1718-51-0	Surrogate: Terphenyl-d14	53.8 %	15-106								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
60-57-1	Dieldrin	0.00548		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	53.5 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	57.6 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:56	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	63.0 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-120								



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-39-3	Barium	67		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-47-3	Chromium	10		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-50-8	Copper	27		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7439-92-1	Lead	7		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7439-96-5	Manganese	1520		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-02-0	Nickel	6		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-66-6	Zinc	42		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV

Metals, NYSDEC Part 375 - Dissolved

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-39-3	Barium	0.035		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-50-8	Copper	0.020		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7439-96-5	Manganese	1.40		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-66-6	Zinc	0.023		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	10.0		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-34-3	1,1-Dichloroethane	14		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
67-64-1	Acetone	1.5	J, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
156-59-2	cis-1,2-Dichloroethylene	9.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:00	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:00	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
127-18-4	Tetrachloroethylene	3.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
156-60-5	trans-1,2-Dichloroethylene	0.24	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
79-01-6	Trichloroethylene	0.25	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-01-4	Vinyl Chloride	42		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %	69-130								
2037-26-5	Surrogate: Toluene-d8	96.8 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	105 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
83-32-9	Acenaphthene	0.144		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
208-96-8	Acenaphthylene	0.0556		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
120-12-7	Anthracene	0.0889		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
218-01-9	Chrysene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
132-64-9	Dibenzofuran	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
206-44-0	Fluoranthene	0.0667		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
86-73-7	Fluorene	0.100		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0222	0.0222	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
91-20-3	Naphthalene	0.156		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.278	0.278	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
85-01-8	Phenanthrene	0.400		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
108-95-2	Phenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
129-00-0	Pyrene	0.100		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	18.6 %	12-64								
4165-62-2	Surrogate: Phenol-d5	12.2 %	10-82								
4165-60-0	Surrogate: Nitrobenzene-d5	64.7 %	12-96								
321-60-8	Surrogate: 2-Fluorobiphenyl	62.1 %	16-84								
118-79-6	Surrogate: 2,4,6-Tribromophenol	97.4 %	15-104								
1718-51-0	Surrogate: Terphenyl-d14	52.2 %	15-106								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
60-57-1	Dieldrin	ND		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	54.1 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	64.8 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:15	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	59.5 %		30-120							
2051-24-3	Surrogate: Decachlorobiphenyl	58.5 %		30-120							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-39-3	Barium	27		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-50-8	Copper	17		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7439-92-1	Lead	85		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7439-96-5	Manganese	1140		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-66-6	Zinc	45		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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July 18, 2016 1:00 pm

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07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	0.012		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-50-8	Copper	0.017		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7439-96-5	Manganese	1.12		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-66-6	Zinc	0.017		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0638

255 Randolph Street

Water

July 18, 2016 1:00 pm

07/18/2016

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0638

255 Randolph Street

Water

July 18, 2016 1:00 pm

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
67-64-1	Acetone	1.3	J, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:28	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:28	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130
2037-26-5	Surrogate: Toluene-d8	95.7 %	81-117
460-00-4	Surrogate: p-Bromofluorobenzene	104 %	79-122



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
83-32-9	Acenaphthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
120-12-7	Anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
218-01-9	Chrysene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
132-64-9	Dibenzofuran	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
206-44-0	Fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
86-73-7	Fluorene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0235	0.0235	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
91-20-3	Naphthalene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.294	0.294	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
85-01-8	Phenanthrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
108-95-2	Phenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
129-00-0	Pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	17.4 %	12-64								



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	11.1 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	59.4 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	58.3 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.8 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	49.9 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
309-00-2	Aldrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-85-7	beta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-86-8	delta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
60-57-1	Dieldrin	ND		ug/L	0.00235	0.00235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
72-20-8	Endrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
76-44-8	Heptachlor	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	89.7 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	79.1 %	30-150								



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:34	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	83.0 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	86.0 %	30-120								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-39-3	Barium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-50-8	Copper	13		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7439-96-5	Manganese	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-66-6	Zinc	23		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-39-3	Barium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-50-8	Copper	0.014		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7439-96-5	Manganese	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-66-6	Zinc	0.021		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 08:19	07/20/2016 15:29	LAB

Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-34-3	1,1-Dichloroethane	0.27	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
56-23-5	Carbon tetrachloride	2.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
67-66-3	Chloroform	1.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
156-59-2	cis-1,2-Dichloroethylene	1.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:55	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:55	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	140		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
79-01-6	Trichloroethylene	87		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %	69-130								
2037-26-5	Surrogate: Toluene-d8	94.3 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	104 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
83-32-9	Acenaphthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
120-12-7	Anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
218-01-9	Chrysene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
206-44-0	Fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
86-73-7	Fluorene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0222	0.0222	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
91-20-3	Naphthalene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.278	0.278	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
85-01-8	Phenanthrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
108-95-2	Phenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
129-00-0	Pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	20.3 %	12-64								
4165-62-2	Surrogate: Phenol-d5	13.8 %	10-82								
4165-60-0	Surrogate: Nitrobenzene-d5	66.5 %	12-96								
321-60-8	Surrogate: 2-Fluorobiphenyl	65.8 %	16-84								
118-79-6	Surrogate: 2,4,6-Tribromophenol	95.0 %	15-104								
1718-51-0	Surrogate: Terphenyl-d14	54.2 %	15-106								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
309-00-2	Aldrin	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
319-86-8	delta-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
60-57-1	Dieldrin	ND		ug/L	0.00222	0.00222	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
72-20-8	Endrin	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
76-44-8	Heptachlor	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	71.8 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	72.1 %	30-150								

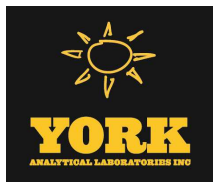
Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:54	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	79.0 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	79.5 %	30-120								



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-39-3	Barium	42		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-50-8	Copper	12		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7439-96-5	Manganese	236		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-66-6	Zinc	22		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV

Metals, NYSDEC Part 375 - Dissolved

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-39-3	Barium	0.043		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-50-8	Copper	0.013		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7439-96-5	Manganese	0.239		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-66-6	Zinc	0.158		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 08:19	07/20/2016 15:29	LAB



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 16G0638-07

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
67-64-1	Acetone	2.1	B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 16G0638-07

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 23:23	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 23:23	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130								
2037-26-5	Surrogate: Toluene-d8	96.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	106 %	79-122								



Analytical Batch Summary

Batch ID: BG60817

Preparation Method: Analysis Preparation

Prepared By: TJM

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/19/16
16G0638-02	MW-2	07/19/16
16G0638-03	MW-3	07/19/16
16G0638-04	MW-4	07/19/16
16G0638-05	Equipment Blank	07/19/16
16G0638-06	GW Dupe	07/19/16
BG60817-BLK1	Blank	07/19/16
BG60817-BS1	LCS	07/19/16
BG60817-DUP1	Duplicate	07/19/16
BG60817-MS1	Matrix Spike	07/19/16

Batch ID: BG60821

Preparation Method: EPA 7473 water

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-04	MW-4	07/20/16
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60821-BLK1	Blank	07/20/16
BG60821-DUP1	Duplicate	07/20/16
BG60821-MS1	Matrix Spike	07/20/16
BG60821-SRM1	Reference	07/20/16

Batch ID: BG60842

Preparation Method: Analysis Preparation

Prepared By: LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60842-BLK1	Blank	07/20/16
BG60842-SRM1	Reference	07/20/16

Batch ID: BG60892

Preparation Method: EPA SW846-3510C Low Level

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/20/16
16G0638-01	MW-1	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-04	MW-4	07/20/16
16G0638-04	MW-4	07/20/16



16G0638-05	Equipment Blank	07/20/16
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60892-BLK1	Blank	07/20/16
BG60892-BLK2	Blank	07/20/16
BG60892-BS1	LCS	07/20/16
BG60892-BS2	LCS	07/20/16
BG60892-MS1	Matrix Spike	07/20/16
BG60892-MSD1	Matrix Spike Dup	07/20/16

Batch ID: BG60916 **Preparation Method:** EPA 5030B **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/21/16
16G0638-02	MW-2	07/21/16
16G0638-03	MW-3	07/21/16
BG60916-BLK1	Blank	07/21/16
BG60916-BS1	LCS	07/21/16
BG60916-BSD1	LCS Dup	07/21/16
BG60916-MS1	Matrix Spike	07/21/16
BG60916-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60930 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/21/16
16G0638-02	MW-2	07/21/16
16G0638-03	MW-3	07/21/16
16G0638-04	MW-4	07/21/16
16G0638-05	Equipment Blank	07/21/16
16G0638-06	GW Dupe	07/21/16
BG60930-BLK1	Blank	07/21/16
BG60930-DUP1	Duplicate	07/21/16
BG60930-MS1	Matrix Spike	07/21/16
BG60930-SRM1	Reference	07/21/16

Batch ID: BG61006 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/22/16
16G0638-02	MW-2	07/22/16
16G0638-03	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
BG61006-BLK1	Blank	07/22/16
BG61006-DUP1	Duplicate	07/22/16
BG61006-MS1	Matrix Spike	07/22/16
BG61006-SRM1	Reference	07/22/16



Batch ID: BG61024

Preparation Method: EPA 3510C

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/22/16
16G0638-02	MW-2	07/22/16
16G0638-03	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
BG61024-BLK1	Blank	07/22/16
BG61024-BLK2	Blank	07/22/16
BG61024-BS1	LCS	07/22/16
BG61024-BS2	LCS	07/22/16
BG61024-MS1	Matrix Spike	07/22/16
BG61024-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG61035

Preparation Method: EPA 5030B

Prepared By: BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01RE1	MW-1	07/22/16
16G0638-03RE1	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
16G0638-07	Trip Blank	07/22/16
BG61035-BLK1	Blank	07/22/16
BG61035-BS1	LCS	07/22/16
BG61035-BSD1	LCS Dup	07/22/16
BG61035-MS1	Matrix Spike	07/22/16
BG61035-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG61073

Preparation Method: Analysis Preparation

Prepared By: AD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/25/16
16G0638-02	MW-2	07/25/16
16G0638-03	MW-3	07/25/16
16G0638-04	MW-4	07/25/16
BG61073-BLK1	Blank	07/25/16
BG61073-BS1	LCS	07/25/16
BG61073-DUP1	Duplicate	07/25/16
BG61073-MS1	Matrix Spike	07/25/16

Batch ID: BG61129

Preparation Method: Analysis Preparation

Prepared By: PAM

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/25/16
16G0638-02	MW-2	07/25/16



16G0638-03	MW-3	07/25/16
16G0638-04	MW-4	07/25/16
16G0638-05	Equipment Blank	07/25/16
16G0638-06	GW Dupe	07/25/16



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

Blank (BG60916-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	0.61	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	0.36	0.50	"								
Acetone	ND	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	9.61		"	10.0		96.1	69-130				
Surrogate: Toluene-d8	9.32		"	10.0		93.2	81-117				
Surrogate: p-Bromofluorobenzene	11.0		"	10.0		110	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

LCS (BG60916-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	12		ug/L	10.0		119	78-136				
1,1-Dichloroethane	12		"	10.0		120	82-129				
1,1-Dichloroethylene	12		"	10.0		124	68-138				
1,2,4-Trimethylbenzene	12		"	10.0		122	82-132				
1,2-Dichlorobenzene	11		"	10.0		106	79-123				
1,2-Dichloroethane	10		"	10.0		104	73-132				
1,3,5-Trimethylbenzene	13		"	10.0		126	80-131				
1,3-Dichlorobenzene	11		"	10.0		108	86-122				
1,4-Dichlorobenzene	11		"	10.0		109	85-124				
1,4-Dioxane	120		"	200		58.9	10-349				
2-Butanone	11		"	10.0		110	49-152				
Acetone	17		"	10.0		169	14-150	High Bias			
Benzene	12		"	10.0		120	85-126				
Carbon tetrachloride	11		"	10.0		114	77-141				
Chlorobenzene	9.9		"	10.0		98.6	88-120				
Chloroform	12		"	10.0		121	82-128				
cis-1,2-Dichloroethylene	11		"	10.0		113	83-129				
Ethyl Benzene	11		"	10.0		110	80-131				
Methyl tert-butyl ether (MTBE)	6.1		"	10.0		61.0	76-135	Low Bias			
Methylene chloride	10		"	10.0		103	55-137				
Naphthalene	10		"	10.0		105	70-147				
n-Butylbenzene	12		"	10.0		124	79-132				
n-Propylbenzene	12		"	10.0		119	78-133				
o-Xylene	10		"	10.0		103	78-130				
p- & m- Xylenes	22		"	20.0		110	77-133				
sec-Butylbenzene	12		"	10.0		118	79-137				
tert-Butylbenzene	11		"	10.0		113	77-138				
Tetrachloroethylene	17		"	10.0		174	82-131	High Bias			
Toluene	11		"	10.0		110	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		118	80-132				
Trichloroethylene	11		"	10.0		110	82-128				
Vinyl Chloride	11		"	10.0		106	58-145				
Surrogate: 1,2-Dichloroethane-d4	9.34		"	10.0		93.4	69-130				
Surrogate: Toluene-d8	9.22		"	10.0		92.2	81-117				
Surrogate: p-Bromofluorobenzene	10.8		"	10.0		108	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60916 - EPA 5030B											
LCS Dup (BG60916-BSD1)						Prepared & Analyzed: 07/21/2016					
1,1,1-Trichloroethane	12		ug/L	10.0		117	78-136		1.69	30	
1,1-Dichloroethane	12		"	10.0		119	82-129		1.26	30	
1,1-Dichloroethylene	12		"	10.0		120	68-138		3.45	30	
1,2,4-Trimethylbenzene	12		"	10.0		120	82-132		2.31	30	
1,2-Dichlorobenzene	10		"	10.0		104	79-123		1.33	30	
1,2-Dichloroethane	11		"	10.0		108	73-132		4.34	30	
1,3,5-Trimethylbenzene	12		"	10.0		124	80-131		2.32	30	
1,3-Dichlorobenzene	11		"	10.0		107	86-122		1.58	30	
1,4-Dichlorobenzene	11		"	10.0		106	85-124		2.14	30	
1,4-Dioxane	110		"	200		56.9	10-349		3.42	30	
2-Butanone	11		"	10.0		105	49-152		4.74	30	
Acetone	12		"	10.0		121	14-150		33.1	30	Non-dir.
Benzene	12		"	10.0		118	85-126		1.43	30	
Carbon tetrachloride	11		"	10.0		113	77-141		0.440	30	
Chlorobenzene	9.9		"	10.0		98.9	88-120		0.304	30	
Chloroform	12		"	10.0		117	82-128		3.20	30	
cis-1,2-Dichloroethylene	11		"	10.0		113	83-129		0.443	30	
Ethyl Benzene	11		"	10.0		111	80-131		0.272	30	
Methyl tert-butyl ether (MTBE)	8.1		"	10.0		81.3	76-135		28.5	30	
Methylene chloride	10		"	10.0		102	55-137		1.27	30	
Naphthalene	11		"	10.0		114	70-147		7.96	30	
n-Butylbenzene	12		"	10.0		120	79-132		3.43	30	
n-Propylbenzene	12		"	10.0		116	78-133		2.04	30	
o-Xylene	10		"	10.0		102	78-130		0.390	30	
p- & m- Xylenes	22		"	20.0		110	77-133		0.136	30	
sec-Butylbenzene	11		"	10.0		114	79-137		3.96	30	
tert-Butylbenzene	11		"	10.0		110	77-138		2.96	30	
Tetrachloroethylene	11		"	10.0		114	82-131		41.9	30	Non-dir.
Toluene	11		"	10.0		109	80-127		0.183	30	
trans-1,2-Dichloroethylene	12		"	10.0		118	80-132		0.338	30	
Trichloroethylene	11		"	10.0		107	82-128		2.76	30	
Vinyl Chloride	10		"	10.0		102	58-145		3.26	30	
Surrogate: 1,2-Dichloroethane-d4	9.29		"	10.0		92.9	69-130				
Surrogate: Toluene-d8	9.32		"	10.0		93.2	81-117				
Surrogate: p-Bromofluorobenzene	10.7		"	10.0		107	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

Matrix Spike (BG60916-MS1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/21/2016				
1,1,1-Trichloroethane	88		ug/L	10.0	65	230	70-146	High Bias			
1,1-Dichloroethane	12		"	10.0	0.59	113	54-146				
1,1-Dichloroethylene	13		"	10.0	1.2	114	44-165				
1,2,4-Trimethylbenzene	11		"	10.0	ND	109	72-129				
1,2-Dichlorobenzene	9.6		"	10.0	ND	95.7	63-122				
1,2-Dichloroethane	11		"	10.0	0.59	101	68-131				
1,3,5-Trimethylbenzene	11		"	10.0	ND	112	69-126				
1,3-Dichlorobenzene	9.7		"	10.0	ND	96.7	74-119				
1,4-Dichlorobenzene	9.6		"	10.0	ND	96.4	70-124				
1,4-Dioxane	140		"	200	ND	70.2	10-310				
2-Butanone	10		"	10.0	ND	102	10-193				
Acetone	9.0		"	10.0	ND	90.3	13-149				
Benzene	11		"	10.0	ND	114	38-155				
Carbon tetrachloride	13		"	10.0	ND	127	71-146				
Chlorobenzene	9.7		"	10.0	0.43	92.5	81-117				
Chloroform	13		"	10.0	1.8	114	80-124				
cis-1,2-Dichloroethylene	17		"	10.0	5.2	116	76-125				
Ethyl Benzene	10		"	10.0	ND	102	72-128				
Methyl tert-butyl ether (MTBE)	9.2		"	10.0	ND	92.2	75-128				
Methylene chloride	9.4		"	10.0	ND	94.2	57-128				
Naphthalene	9.0		"	10.0	ND	89.5	39-158				
n-Butylbenzene	11		"	10.0	ND	106	61-138				
n-Propylbenzene	11		"	10.0	ND	105	66-134				
o-Xylene	9.5		"	10.0	ND	94.9	69-126				
p- & m- Xylenes	20		"	20.0	ND	101	67-130				
sec-Butylbenzene	10		"	10.0	ND	105	53-155				
tert-Butylbenzene	10		"	10.0	ND	102	65-139				
Tetrachloroethylene	890		"	10.0	1700	NR	64-139	Low Bias			
Toluene	11		"	10.0	ND	105	76-123				
trans-1,2-Dichloroethylene	12		"	10.0	ND	115	79-131				
Trichloroethylene	1100		"	10.0	790	NR	53-145	High Bias			
Vinyl Chloride	8.0		"	10.0	ND	80.5	31-165				
Surrogate: 1,2-Dichloroethane-d4	9.53		"	10.0		95.3	69-130				
Surrogate: Toluene-d8	9.42		"	10.0		94.2	81-117				
Surrogate: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60916 - EPA 5030B											
Matrix Spike Dup (BG60916-MSD1)	*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/21/2016				
1,1,1-Trichloroethane	82		ug/L	10.0	65	176	70-146	High Bias	6.35	30	
1,1-Dichloroethane	12		"	10.0	0.59	112	54-146		1.52	30	
1,1-Dichloroethylene	12		"	10.0	1.2	112	44-165		1.61	30	
1,2,4-Trimethylbenzene	11		"	10.0	ND	109	72-129		0.368	30	
1,2-Dichlorobenzene	9.6		"	10.0	ND	95.6	63-122		0.105	30	
1,2-Dichloroethane	10		"	10.0	0.59	97.1	68-131		3.53	30	
1,3,5-Trimethylbenzene	11		"	10.0	ND	112	69-126		0.268	30	
1,3-Dichlorobenzene	9.6		"	10.0	ND	96.0	74-119		0.727	30	
1,4-Dichlorobenzene	9.6		"	10.0	ND	95.9	70-124		0.520	30	
1,4-Dioxane	93		"	200	ND	46.5	10-310		40.7	30	Non-dir.
2-Butanone	9.5		"	10.0	ND	94.9	10-193		6.82	30	
Acetone	8.3		"	10.0	ND	83.0	13-149		8.42	30	
Benzene	11		"	10.0	ND	112	38-155		1.24	30	
Carbon tetrachloride	13		"	10.0	ND	128	71-146		0.940	30	
Chlorobenzene	9.6		"	10.0	0.43	92.1	81-117		0.414	30	
Chloroform	13		"	10.0	1.8	112	80-124		1.61	30	
cis-1,2-Dichloroethylene	16		"	10.0	5.2	111	76-125		3.07	30	
Ethyl Benzene	10		"	10.0	ND	102	72-128		0.196	30	
Methyl tert-butyl ether (MTBE)	10		"	10.0	ND	101	75-128		9.21	30	
Methylene chloride	9.4		"	10.0	ND	93.7	57-128		0.532	30	
Naphthalene	11		"	10.0	ND	107	39-158		17.5	30	
n-Butylbenzene	11		"	10.0	ND	108	61-138		2.06	30	
n-Propylbenzene	11		"	10.0	ND	105	66-134		0.190	30	
o-Xylene	9.6		"	10.0	ND	95.6	69-126		0.735	30	
p- & m- Xylenes	20		"	20.0	ND	101	67-130		0.148	30	
sec-Butylbenzene	11		"	10.0	ND	107	53-155		1.51	30	
tert-Butylbenzene	10		"	10.0	ND	103	65-139		0.488	30	
Tetrachloroethylene	810		"	10.0	1700	NR	64-139	Low Bias	9.17	30	
Toluene	10		"	10.0	ND	105	76-123		0.380	30	
trans-1,2-Dichloroethylene	11		"	10.0	ND	113	79-131		1.93	30	
Trichloroethylene	1000		"	10.0	790	NR	53-145	High Bias	3.79	30	
Vinyl Chloride	8.6		"	10.0	ND	85.5	31-165		6.02	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>9.30</i>		<i>"</i>	<i>10.0</i>		<i>93.0</i>	<i>69-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>9.39</i>		<i>"</i>	<i>10.0</i>		<i>93.9</i>	<i>81-117</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.4</i>		<i>"</i>	<i>10.0</i>		<i>104</i>	<i>79-122</i>				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Blank (BG61035-BLK1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	1.3	2.0	"								
Acetone	1.9	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	10.3		"	10.0		103	69-130				
Surrogate: Toluene-d8	9.59		"	10.0		95.9	81-117				
Surrogate: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

LCS (BG61035-BS1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	12		ug/L	10.0		119	78-136				
1,1-Dichloroethane	13		"	10.0		133	82-129	High Bias			
1,1-Dichloroethylene	12		"	10.0		121	68-138				
1,2,4-Trimethylbenzene	11		"	10.0		109	82-132				
1,2-Dichlorobenzene	9.8		"	10.0		97.8	79-123				
1,2-Dichloroethane	12		"	10.0		119	73-132				
1,3,5-Trimethylbenzene	11		"	10.0		108	80-131				
1,3-Dichlorobenzene	9.9		"	10.0		99.2	86-122				
1,4-Dichlorobenzene	9.6		"	10.0		96.3	85-124				
1,4-Dioxane	220		"	200		109	10-349				
2-Butanone	9.5		"	10.0		95.1	49-152				
Acetone	12		"	10.0		122	14-150				
Benzene	12		"	10.0		122	85-126				
Carbon tetrachloride	12		"	10.0		120	77-141				
Chlorobenzene	10		"	10.0		104	88-120				
Chloroform	12		"	10.0		122	82-128				
cis-1,2-Dichloroethylene	12		"	10.0		120	83-129				
Ethyl Benzene	11		"	10.0		114	80-131				
Methyl tert-butyl ether (MTBE)	11		"	10.0		110	76-135				
Methylene chloride	12		"	10.0		115	55-137				
Naphthalene	8.7		"	10.0		86.7	70-147				
n-Butylbenzene	11		"	10.0		110	79-132				
n-Propylbenzene	11		"	10.0		106	78-133				
o-Xylene	11		"	10.0		108	78-130				
p- & m- Xylenes	23		"	20.0		115	77-133				
sec-Butylbenzene	10		"	10.0		100	79-137				
tert-Butylbenzene	10		"	10.0		100	77-138				
Tetrachloroethylene	10		"	10.0		103	82-131				
Toluene	11		"	10.0		111	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		121	80-132				
Trichloroethylene	11		"	10.0		105	82-128				
Vinyl Chloride	12		"	10.0		124	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.2		"	10.0		102	69-130				
Surrogate: Toluene-d8	9.63		"	10.0		96.3	81-117				
Surrogate: p-Bromofluorobenzene	9.97		"	10.0		99.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

LCS Dup (BG61035-BSD1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	12		ug/L	10.0		120	78-136		0.251	30	
1,1-Dichloroethane	13		"	10.0		133	82-129	High Bias	0.225	30	
1,1-Dichloroethylene	12		"	10.0		120	68-138		0.912	30	
1,2,4-Trimethylbenzene	11		"	10.0		111	82-132		1.36	30	
1,2-Dichlorobenzene	9.8		"	10.0		98.3	79-123		0.510	30	
1,2-Dichloroethane	12		"	10.0		120	73-132		0.919	30	
1,3,5-Trimethylbenzene	11		"	10.0		110	80-131		1.56	30	
1,3-Dichlorobenzene	10		"	10.0		99.8	86-122		0.603	30	
1,4-Dichlorobenzene	9.8		"	10.0		98.5	85-124		2.26	30	
1,4-Dioxane	200		"	200		99.9	10-349		8.28	30	
2-Butanone	9.5		"	10.0		95.0	49-152		0.105	30	
Acetone	11		"	10.0		109	14-150		10.8	30	
Benzene	12		"	10.0		123	85-126		1.06	30	
Carbon tetrachloride	12		"	10.0		120	77-141		0.500	30	
Chlorobenzene	10		"	10.0		104	88-120		0.0965	30	
Chloroform	12		"	10.0		123	82-128		0.735	30	
cis-1,2-Dichloroethylene	12		"	10.0		120	83-129		0.500	30	
Ethyl Benzene	11		"	10.0		114	80-131		0.0874	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		111	76-135		0.723	30	
Methylene chloride	11		"	10.0		114	55-137		1.13	30	
Naphthalene	8.7		"	10.0		86.8	70-147		0.115	30	
n-Butylbenzene	11		"	10.0		110	79-132		0.273	30	
n-Propylbenzene	11		"	10.0		105	78-133		0.0948	30	
o-Xylene	11		"	10.0		107	78-130		1.02	30	
p- & m- Xylenes	23		"	20.0		114	77-133		0.743	30	
sec-Butylbenzene	10		"	10.0		102	79-137		0.990	30	
tert-Butylbenzene	10		"	10.0		101	77-138		0.794	30	
Tetrachloroethylene	10		"	10.0		103	82-131		0.485	30	
Toluene	11		"	10.0		110	80-127		0.631	30	
trans-1,2-Dichloroethylene	12		"	10.0		122	80-132		1.15	30	
Trichloroethylene	11		"	10.0		105	82-128		0.0951	30	
Vinyl Chloride	13		"	10.0		126	58-145		1.68	30	
Surrogate: 1,2-Dichloroethane-d4	10.1		"	10.0		101	69-130				
Surrogate: Toluene-d8	9.51		"	10.0		95.1	81-117				
Surrogate: p-Bromofluorobenzene	10.0		"	10.0		100	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Matrix Spike (BG61035-MS1)		*Source sample: 16G0638-01RE1 (MW-1)					Prepared: 07/22/2016 Analyzed: 07/23/2016				
1,1,1-Trichloroethane	13		ug/L	10.0	50	NR	70-146	Low Bias			
1,1-Dichloroethane	13		"	10.0	ND	132	54-146				
1,1-Dichloroethylene	12		"	10.0	ND	125	44-165				
1,2,4-Trimethylbenzene	11		"	10.0	ND	107	72-129				
1,2-Dichlorobenzene	9.2		"	10.0	ND	92.3	63-122				
1,2-Dichloroethane	11		"	10.0	ND	115	68-131				
1,3,5-Trimethylbenzene	10		"	10.0	ND	100	69-126				
1,3-Dichlorobenzene	9.2		"	10.0	ND	91.7	74-119				
1,4-Dichlorobenzene	9.1		"	10.0	ND	90.8	70-124				
1,4-Dioxane	190		"	200	ND	93.3	10-310				
2-Butanone	10		"	10.0	28	NR	10-193	Low Bias			
Acetone	11		"	10.0	ND	110	13-149				
Benzene	12		"	10.0	ND	122	38-155				
Carbon tetrachloride	12		"	10.0	ND	123	71-146				
Chlorobenzene	9.9		"	10.0	ND	98.7	81-117				
Chloroform	12		"	10.0	ND	122	80-124				
cis-1,2-Dichloroethylene	12		"	10.0	ND	116	76-125				
Ethyl Benzene	11		"	10.0	ND	107	72-128				
Methyl tert-butyl ether (MTBE)	11		"	10.0	ND	114	75-128				
Methylene chloride	11		"	10.0	ND	110	57-128				
Naphthalene	9.4		"	10.0	ND	94.4	39-158				
n-Butylbenzene	9.7		"	10.0	ND	97.0	61-138				
n-Propylbenzene	10		"	10.0	ND	100	66-134				
o-Xylene	10		"	10.0	ND	103	69-126				
p- & m- Xylenes	21		"	20.0	ND	107	67-130				
sec-Butylbenzene	9.8		"	10.0	ND	97.9	53-155				
tert-Butylbenzene	9.8		"	10.0	ND	97.7	65-139				
Tetrachloroethylene	43		"	10.0	1700	NR	64-139	Low Bias			
Toluene	10		"	10.0	ND	105	76-123				
trans-1,2-Dichloroethylene	12		"	10.0	ND	124	79-131				
Trichloroethylene	25		"	10.0	790	NR	53-145	Low Bias			
Vinyl Chloride	9.9		"	10.0	ND	98.8	31-165				
Surrogate: 1,2-Dichloroethane-d4	10.1		"	10.0		101	69-130				
Surrogate: Toluene-d8	9.39		"	10.0		93.9	81-117				
Surrogate: p-Bromofluorobenzene	9.97		"	10.0		99.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Matrix Spike Dup (BG61035-MSD1)	*Source sample: 16G0638-01RE1 (MW-1)					Prepared: 07/22/2016 Analyzed: 07/23/2016					
1,1,1-Trichloroethane	13		ug/L	10.0	50	NR	70-146	Low Bias	4.99	30	
1,1-Dichloroethane	13		"	10.0	ND	127	54-146		3.86	30	
1,1-Dichloroethylene	12		"	10.0	ND	119	44-165		4.59	30	
1,2,4-Trimethylbenzene	10		"	10.0	ND	103	72-129		3.91	30	
1,2-Dichlorobenzene	8.9		"	10.0	ND	88.6	63-122			30	
1,2-Dichloroethane	11		"	10.0	ND	106	68-131		7.69	30	
1,3,5-Trimethylbenzene	10		"	10.0	ND	101	69-126		0.595	30	
1,3-Dichlorobenzene	9.0		"	10.0	ND	89.7	74-119			30	
1,4-Dichlorobenzene	8.8		"	10.0	ND	88.5	70-124			30	
1,4-Dioxane	160		"	200	ND	79.0	10-310			30	
2-Butanone	8.5		"	10.0	28	NR	10-193	Low Bias		30	
Acetone	11		"	10.0	ND	105	13-149			30	
Benzene	12		"	10.0	ND	118	38-155		3.34	30	
Carbon tetrachloride	12		"	10.0	ND	120	71-146		2.97	30	
Chlorobenzene	9.5		"	10.0	ND	95.1	81-117			30	
Chloroform	12		"	10.0	ND	115	80-124		5.50	30	
cis-1,2-Dichloroethylene	11		"	10.0	ND	111	76-125		4.85	30	
Ethyl Benzene	10		"	10.0	ND	104	72-128		2.74	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0	ND	107	75-128		6.36	30	
Methylene chloride	10		"	10.0	ND	104	57-128			30	
Naphthalene	8.8		"	10.0	ND	87.6	39-158			30	
n-Butylbenzene	9.6		"	10.0	ND	96.0	61-138			30	
n-Propylbenzene	9.7		"	10.0	ND	97.3	66-134		3.14	30	
o-Xylene	9.8		"	10.0	ND	98.0	69-126		4.68	30	
p- & m- Xylenes	21		"	20.0	ND	104	67-130			30	
sec-Butylbenzene	9.5		"	10.0	ND	95.1	53-155			30	
tert-Butylbenzene	9.6		"	10.0	ND	95.7	65-139			30	
Tetrachloroethylene	40		"	10.0	1700	NR	64-139	Low Bias	8.22	30	
Toluene	10		"	10.0	ND	102	76-123		2.13	30	
trans-1,2-Dichloroethylene	12		"	10.0	ND	119	79-131		4.21	30	
Trichloroethylene	24		"	10.0	790	NR	53-145	Low Bias	6.92	30	
Vinyl Chloride	9.3		"	10.0	ND	93.4	31-165			30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>9.83</i>		<i>"</i>	<i>10.0</i>		<i>98.3</i>	<i>69-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>9.39</i>		<i>"</i>	<i>10.0</i>		<i>93.9</i>	<i>81-117</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>79-122</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Blank (BG61024-BLK1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L								
3- & 4-Methylphenols	ND	5.00	"								
Acenaphthene	ND	0.0500	"								
Acenaphthylene	ND	0.0500	"								
Anthracene	ND	0.0500	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Dibenzofuran	ND	5.00	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Naphthalene	ND	0.0500	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Phenol	ND	5.00	"								
Pyrene	ND	0.0500	"								
Surrogate: 2-Fluorophenol	18.6		"	75.2		24.8	12-64				
Surrogate: Phenol-d5	12.5		"	75.0		16.7	10-82				
Surrogate: Nitrobenzene-d5	34.2		"	50.3		68.0	12-96				
Surrogate: 2-Fluorobiphenyl	32.8		"	50.1		65.5	16-84				
Surrogate: 2,4,6-Tribromophenol	67.1		"	75.2		89.2	15-104				
Surrogate: Terphenyl-d14	25.7		"	50.0		51.4	15-106				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Blank (BG61024-BLK2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L								
3- & 4-Methylphenols	ND	5.00	"								
Acenaphthene	ND	0.0500	"								
Acenaphthylene	ND	0.0500	"								
Anthracene	ND	0.0500	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Dibenzofuran	ND	5.00	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Naphthalene	ND	0.0500	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Phenol	ND	5.00	"								
Pyrene	ND	0.0500	"								
<i>Surrogate: 2-Fluorophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>0.00</i>		<i>"</i>	<i>75.0</i>			<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.00</i>		<i>"</i>	<i>50.3</i>			<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.00</i>		<i>"</i>	<i>50.1</i>			<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.00</i>		<i>"</i>	<i>50.0</i>			<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

LCS (BG61024-BS1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	20.4	5.00	ug/L	50.0		40.7	10-90				
3- & 4-Methylphenols	17.9	5.00	"	50.0		35.9	10-101				
Acenaphthene	33.5	0.0500	"	50.0		67.0	24-114				
Acenaphthylene	31.8	0.0500	"	50.0		63.5	26-112				
Anthracene	33.7	0.0500	"	50.0		67.4	35-114				
Benzo(a)anthracene	38.0	0.0500	"	50.0		75.9	38-127				
Benzo(a)pyrene	63.2	0.0500	"	50.0		126	30-146				
Benzo(b)fluoranthene	53.2	0.0500	"	50.0		106	36-145				
Benzo(g,h,i)perylene	67.7	0.0500	"	50.0		135	10-163				
Benzo(k)fluoranthene	48.9	0.0500	"	50.0		97.8	16-149				
Chrysene	45.6	0.0500	"	50.0		91.1	33-120				
Dibenzo(a,h)anthracene	58.5	0.0500	"	50.0		117	10-149				
Dibenzofuran	36.4	5.00	"	50.0		72.8	42-105				
Fluoranthene	36.4	0.0500	"	50.0		72.8	33-126				
Fluorene	32.9	0.0500	"	50.0		65.8	28-117				
Hexachlorobenzene	26.4	0.0200	"	50.0		52.8	27-120				
Indeno(1,2,3-cd)pyrene	55.8	0.0500	"	50.0		112	10-150				
Naphthalene	31.2	0.0500	"	50.0		62.3	30-99				
Pentachlorophenol	50.2	0.250	"	50.0		100	19-127				
Phenanthrene	32.5	0.0500	"	50.0		65.0	31-112				
Phenol	12.1	5.00	"	50.0		24.2	10-37				
Pyrene	46.9	0.0500	"	50.0		93.8	42-125				
<i>Surrogate: 2-Fluorophenol</i>	<i>31.3</i>		<i>"</i>	<i>75.2</i>		<i>41.6</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>19.8</i>		<i>"</i>	<i>75.0</i>		<i>26.4</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>45.5</i>		<i>"</i>	<i>50.3</i>		<i>90.5</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>37.0</i>		<i>"</i>	<i>50.1</i>		<i>73.9</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>82.2</i>		<i>"</i>	<i>75.2</i>		<i>109</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>47.6</i>		<i>"</i>	<i>50.0</i>		<i>95.1</i>	<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

LCS (BG61024-BS2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L				10-90				
3- & 4-Methylphenols	ND	5.00	"				10-101				
Acenaphthene	0.630	0.0500	"	1.00		63.0	24-114				
Acenaphthylene	0.740	0.0500	"	1.00		74.0	26-112				
Anthracene	0.600	0.0500	"	1.00		60.0	35-114				
Benzo(a)anthracene	1.03	0.0500	"	1.00		103	38-127				
Benzo(a)pyrene	0.770	0.0500	"	1.00		77.0	30-146				
Benzo(b)fluoranthene	1.37	0.0500	"	1.00		137	36-145				
Benzo(g,h,i)perylene	0.800	0.0500	"	1.00		80.0	10-163				
Benzo(k)fluoranthene	0.900	0.0500	"	1.00		90.0	16-149				
Chrysene	0.790	0.0500	"	1.00		79.0	33-120				
Dibenzo(a,h)anthracene	0.850	0.0500	"	1.00		85.0	10-149				
Dibenzofuran	ND	5.00	"				42-105				
Fluoranthene	0.890	0.0500	"	1.00		89.0	33-126				
Fluorene	0.740	0.0500	"	1.00		74.0	28-117				
Hexachlorobenzene	ND	0.0200	"				27-120				
Indeno(1,2,3-cd)pyrene	0.870	0.0500	"	1.00		87.0	10-150				
Naphthalene	0.650	0.0500	"	1.00		65.0	30-99				
Pentachlorophenol	ND	0.250	"				19-127				
Phenanthrene	0.860	0.0500	"	1.00		86.0	31-112				
Phenol	ND	5.00	"				10-37				
Pyrene	0.760	0.0500	"	1.00		76.0	42-125				
Surrogate: 2-Fluorophenol	0.00		"	75.2			12-64				
Surrogate: Phenol-d5	0.00		"	75.0			10-82				
Surrogate: Nitrobenzene-d5	0.00		"	50.3			12-96				
Surrogate: 2-Fluorobiphenyl	0.00		"	50.1			16-84				
Surrogate: 2,4,6-Tribromophenol	0.00		"	75.2			15-104				
Surrogate: Terphenyl-d14	0.00		"	50.0			15-106				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Matrix Spike (BG61024-MS1)	*Source sample: 16G0638-01 (MW-1)						Prepared: 07/22/2016 Analyzed: 07/24/2016				
2-Methylphenol	19.3	5.71	ug/L	57.1	ND	33.8	10-118				
3- & 4-Methylphenols	16.1	5.71	"	57.1	ND	28.1	10-102				
Acenaphthene	35.9	0.0571	"	57.1	ND	62.9	17-132				
Acenaphthylene	33.8	0.0571	"	57.1	ND	59.2	13-124				
Anthracene	34.3	0.0571	"	57.1	ND	60.0	40-105				
Benzo(a)anthracene	40.9	0.0571	"	57.1	ND	71.6	23-141				
Benzo(a)pyrene	60.9	0.0571	"	57.1	ND	107	46-118				
Benzo(b)fluoranthene	55.6	0.0571	"	57.1	ND	97.3	22-133				
Benzo(g,h,i)perylene	55.0	0.0571	"	57.1	ND	96.3	10-126				
Benzo(k)fluoranthene	45.0	0.0571	"	57.1	ND	78.8	18-152				
Chrysene	45.6	0.0571	"	57.1	ND	79.9	30-127				
Dibenzo(a,h)anthracene	51.9	0.0571	"	57.1	ND	90.9	10-131				
Dibenzofuran	38.7	5.71	"	57.1	ND	67.8	37-103				
Fluoranthene	38.2	0.0571	"	57.1	ND	66.8	29-123				
Fluorene	35.4	0.0571	"	57.1	ND	62.0	20-133				
Hexachlorobenzene	28.1	0.0229	"	57.1	ND	49.2	24-120				
Indeno(1,2,3-cd)pyrene	48.4	0.0571	"	57.1	ND	84.8	10-130				
Naphthalene	32.6	0.0571	"	57.1	ND	57.1	26-104				
Pentachlorophenol	54.7	0.286	"	57.1	ND	95.7	10-181				
Phenanthrene	34.0	0.0571	"	57.1	ND	59.5	29-121				
Phenol	8.37	5.71	"	57.1	ND	14.6	10-107				
Pyrene	48.1	0.0571	"	57.1	ND	84.1	34-129				
<i>Surrogate: 2-Fluorophenol</i>	<i>27.2</i>		<i>"</i>	<i>85.9</i>		<i>31.7</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>16.4</i>		<i>"</i>	<i>85.7</i>		<i>19.1</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>47.8</i>		<i>"</i>	<i>57.5</i>		<i>83.1</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>39.4</i>		<i>"</i>	<i>57.3</i>		<i>68.8</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>86.6</i>		<i>"</i>	<i>85.9</i>		<i>101</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>49.0</i>		<i>"</i>	<i>57.1</i>		<i>85.7</i>	<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Matrix Spike Dup (BG61024-MSD1)		*Source sample: 16G0638-01 (MW-1)					Prepared: 07/22/2016 Analyzed: 07/24/2016				
2-Methylphenol	20.9	5.71	ug/L	57.1	ND	36.6	10-118		8.18	20	
3- & 4-Methylphenols	17.3	5.71	"	57.1	ND	30.3	10-102		7.39	20	
Acenaphthene	37.6	0.0571	"	57.1	ND	65.9	17-132		4.66	20	
Acenaphthylene	35.5	0.0571	"	57.1	ND	62.1	13-124		4.75	20	
Anthracene	37.5	0.0571	"	57.1	ND	65.7	40-105		9.01	20	
Benzo(a)anthracene	46.9	0.0571	"	57.1	ND	82.1	23-141		13.6	20	
Benzo(a)pyrene	76.8	0.0571	"	57.1	ND	134	46-118	High Bias	23.0	20	Non-dir.
Benzo(b)fluoranthene	56.9	0.0571	"	57.1	ND	99.6	22-133		2.30	20	
Benzo(g,h,i)perylene	70.4	0.0571	"	57.1	ND	123	10-126		24.5	20	Non-dir.
Benzo(k)fluoranthene	68.4	0.0571	"	57.1	ND	120	18-152		41.2	20	Non-dir.
Chrysene	54.6	0.0571	"	57.1	ND	95.6	30-127		17.9	20	
Dibenzo(a,h)anthracene	68.0	0.0571	"	57.1	ND	119	10-131		26.8	20	Non-dir.
Dibenzofuran	41.6	5.71	"	57.1	ND	72.8	37-103		7.14	20	
Fluoranthene	41.5	0.0571	"	57.1	ND	72.7	29-123		8.43	20	
Fluorene	37.1	0.0571	"	57.1	ND	65.0	20-133		4.73	20	
Hexachlorobenzene	30.3	0.0229	"	57.1	ND	53.0	24-120		7.56	20	
Indeno(1,2,3-cd)pyrene	61.2	0.0571	"	57.1	ND	107	10-130		23.3	20	Non-dir.
Naphthalene	35.0	0.0571	"	57.1	ND	61.3	26-104		7.06	20	
Pentachlorophenol	60.3	0.286	"	57.1	ND	105	10-181		9.68	20	
Phenanthrene	37.0	0.0571	"	57.1	ND	64.7	29-121		8.44	20	
Phenol	11.8	5.71	"	57.1	ND	20.6	10-107		34.0	20	Non-dir.
Pyrene	58.0	0.0571	"	57.1	ND	101	34-129		18.7	20	
<i>Surrogate: 2-Fluorophenol</i>	<i>29.5</i>		<i>"</i>	<i>85.9</i>		<i>34.3</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>18.1</i>		<i>"</i>	<i>85.7</i>		<i>21.1</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>51.4</i>		<i>"</i>	<i>57.5</i>		<i>89.4</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>41.4</i>		<i>"</i>	<i>57.3</i>		<i>72.4</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>92.0</i>		<i>"</i>	<i>85.9</i>		<i>107</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>57.8</i>		<i>"</i>	<i>57.1</i>		<i>101</i>	<i>15-106</i>				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Blank (BG60892-BLK1)

Prepared: 07/20/2016 Analyzed: 07/21/2016

4,4'-DDD	ND	0.00400	ug/L
4,4'-DDE	ND	0.00400	"
4,4'-DDT	ND	0.00400	"
Aldrin	ND	0.00400	"
alpha-BHC	ND	0.00400	"
alpha-Chlordane	ND	0.00400	"
beta-BHC	ND	0.00400	"
delta-BHC	ND	0.00400	"
Dieldrin	ND	0.00200	"
Endosulfan I	ND	0.00400	"
Endosulfan II	ND	0.00400	"
Endosulfan sulfate	ND	0.00400	"
Endrin	ND	0.00400	"
gamma-BHC (Lindane)	ND	0.00400	"
Heptachlor	ND	0.00400	"

Surrogate: Decachlorobiphenyl

0.161

"

0.200

80.7

30-150

Surrogate: Tetrachloro-m-xylene

0.137

"

0.200

68.5

30-150

LCS (BG60892-BS1)

Prepared: 07/20/2016 Analyzed: 07/21/2016

4,4'-DDD	0.0763	0.00400	ug/L	0.100	76.3	40-120
4,4'-DDE	0.0700	0.00400	"	0.100	70.0	40-120
4,4'-DDT	0.0875	0.00400	"	0.100	87.5	40-120
Aldrin	0.0746	0.00400	"	0.100	74.6	40-120
alpha-BHC	0.0750	0.00400	"	0.100	75.0	40-120
alpha-Chlordane	0.0756	0.00400	"	0.100	75.6	40-120
beta-BHC	0.0848	0.00400	"	0.100	84.8	40-120
delta-BHC	0.0426	0.00400	"	0.100	42.6	40-120
Dieldrin	0.0809	0.00200	"	0.100	80.9	40-120
Endosulfan I	0.0843	0.00400	"	0.100	84.3	40-120
Endosulfan II	0.0881	0.00400	"	0.100	88.1	40-120
Endosulfan sulfate	0.0821	0.00400	"	0.100	82.1	40-120
Endrin	0.0864	0.00400	"	0.100	86.4	40-120
gamma-BHC (Lindane)	0.0775	0.00400	"	0.100	77.5	40-120
Heptachlor	0.0746	0.00400	"	0.100	74.6	40-120

Surrogate: Decachlorobiphenyl

0.164

"

0.200

82.0

30-150

Surrogate: Tetrachloro-m-xylene

0.147

"

0.200

73.3

30-150



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Matrix Spike (BG60892-MS1)		*Source sample: 16G0638-01 (MW-1)						Prepared: 07/20/2016 Analyzed: 07/21/2016			
4,4'-DDD	0.100	0.00444	ug/L	0.111	ND	90.2	30-150				
4,4'-DDE	0.0858	0.00444	"	0.111	ND	77.2	30-150				
4,4'-DDT	0.106	0.00444	"	0.111	ND	95.2	30-150				
Aldrin	0.0628	0.00444	"	0.111	ND	56.5	30-150				
alpha-BHC	0.0644	0.00444	"	0.111	ND	58.0	30-150				
alpha-Chlordane	0.0706	0.00444	"	0.111	ND	63.6	30-150				
beta-BHC	0.0843	0.00444	"	0.111	ND	75.9	30-150				
delta-BHC	0.0462	0.00444	"	0.111	ND	41.6	30-150				
Dieldrin	0.0768	0.00222	"	0.111	ND	69.1	30-150				
Endosulfan I	0.0740	0.00444	"	0.111	ND	66.6	30-150				
Endosulfan II	0.0910	0.00444	"	0.111	ND	81.9	30-150				
Endosulfan sulfate	0.0999	0.00444	"	0.111	ND	89.9	30-150				
Endrin	0.0894	0.00444	"	0.111	ND	80.5	30-150				
gamma-BHC (Lindane)	0.0677	0.00444	"	0.111	ND	61.0	30-150				
Heptachlor	0.0667	0.00444	"	0.111	ND	60.1	30-150				
Surrogate: Decachlorobiphenyl	0.162		"	0.222		73.1	30-150				
Surrogate: Tetrachloro-m-xylene	0.128		"	0.222		57.7	30-150				

Matrix Spike Dup (BG60892-MSD1)		*Source sample: 16G0638-01 (MW-1)						Prepared: 07/20/2016 Analyzed: 07/21/2016			
4,4'-DDD	0.115	0.00471	ug/L	0.118	ND	97.8	30-150	13.7	30		
4,4'-DDE	0.100	0.00471	"	0.118	ND	85.2	30-150	15.6	30		
4,4'-DDT	0.119	0.00471	"	0.118	ND	101	30-150	12.0	30		
Aldrin	0.0714	0.00471	"	0.118	ND	60.7	30-150	12.8	30		
alpha-BHC	0.0708	0.00471	"	0.118	ND	60.2	30-150	9.53	30		
alpha-Chlordane	0.0807	0.00471	"	0.118	ND	68.6	30-150	13.2	30		
beta-BHC	0.0970	0.00471	"	0.118	ND	82.4	30-150	14.0	30		
delta-BHC	0.0505	0.00471	"	0.118	ND	42.9	30-150	8.94	30		
Dieldrin	0.0885	0.00235	"	0.118	ND	75.2	30-150	14.1	30		
Endosulfan I	0.0861	0.00471	"	0.118	ND	73.2	30-150	15.2	30		
Endosulfan II	0.104	0.00471	"	0.118	ND	88.0	30-150	12.9	30		
Endosulfan sulfate	0.100	0.00471	"	0.118	ND	85.2	30-150	0.416	30		
Endrin	0.104	0.00471	"	0.118	ND	88.0	30-150	14.6	30		
gamma-BHC (Lindane)	0.0769	0.00471	"	0.118	ND	65.4	30-150	12.7	30		
Heptachlor	0.0755	0.00471	"	0.118	ND	64.2	30-150	12.4	30		
Surrogate: Decachlorobiphenyl	0.177		"	0.235		75.1	30-150				
Surrogate: Tetrachloro-m-xylene	0.138		"	0.235		58.8	30-150				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch Y6G2212 - BG60122

Performance Mix (Y6G2212-PEM1)

Prepared & Analyzed: 07/21/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.0710		"	0.00			0-200			
4,4'-DDT	129		"	200		64.4	0-200			
Endrin	83.6		"	100		83.6	0-200			

Performance Mix (Y6G2212-PEM2)

Prepared & Analyzed: 07/21/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.635		"	0.00			0-200			
4,4'-DDT	141		"	200		70.3	0-200			
Endrin	92.3		"	100		92.3	0-200			



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Blank (BG60892-BLK2)

Prepared: 07/20/2016 Analyzed: 07/22/2016

Aroclor 1016	ND	0.0500	ug/L								
Aroclor 1221	ND	0.0500	"								
Aroclor 1232	ND	0.0500	"								
Aroclor 1242	ND	0.0500	"								
Aroclor 1248	ND	0.0500	"								
Aroclor 1254	ND	0.0500	"								
Aroclor 1260	ND	0.0500	"								
Total PCBs	ND	0.0500	"								

Surrogate: Tetrachloro-m-xylene	0.164		"	0.200		82.0	30-120				
Surrogate: Decachlorobiphenyl	0.177		"	0.200		88.5	30-120				

LCS (BG60892-BS2)

Prepared: 07/20/2016 Analyzed: 07/22/2016

Aroclor 1016	1.04	0.0500	ug/L	1.00		104	40-120				
Aroclor 1260	0.940	0.0500	"	1.00		94.0	40-120				
Surrogate: Tetrachloro-m-xylene	0.149		"	0.200		74.5	30-120				
Surrogate: Decachlorobiphenyl	0.185		"	0.200		92.5	30-120				



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60930 - EPA 3015A

Blank (BG60930-BLK1)

Prepared & Analyzed: 07/21/2016

Arsenic	ND	4	ug/L
Barium	ND	10	"
Beryllium	ND	1	"
Cadmium	ND	3	"
Chromium	ND	5	"
Copper	ND	3	"
Lead	ND	3	"
Manganese	ND	5	"
Nickel	ND	5	"
Selenium	ND	10	"
Silver	ND	5	"
Zinc	ND	10	"

Duplicate (BG60930-DUP1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/21/2016

Arsenic	ND	4	ug/L	ND		20
Barium	59	11	"	58	0.832	20
Beryllium	ND	1	"	ND		20
Cadmium	ND	3	"	ND		20
Chromium	ND	6	"	ND		20
Copper	16	3	"	18	10.3	20
Lead	ND	3	"	ND		20
Manganese	194	6	"	187	3.33	20
Nickel	ND	6	"	ND		20
Selenium	ND	11	"	ND		20
Silver	ND	6	"	ND		20
Zinc	25	11	"	25	2.18	20

Matrix Spike (BG60930-MS1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/21/2016

Arsenic	2420	4	ug/L	2220	ND	109	75-125
Barium	2580	11	"	2220	58	114	75-125
Beryllium	62	1	"	55.6	ND	112	75-125
Cadmium	61	3	"	55.6	ND	110	75-125
Chromium	244	6	"	222	ND	110	75-125
Copper	350	3	"	278	18	120	75-125
Lead	587	3	"	556	ND	106	75-125
Manganese	825	6	"	556	187	115	75-125
Nickel	610	6	"	556	ND	110	75-125
Selenium	2390	11	"	2220	ND	108	75-125
Silver	57	6	"	55.6	ND	103	75-125
Zinc	610	11	"	556	25	105	75-125



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60930 - EPA 3015A

Reference (BG60930-SRM1)

Prepared & Analyzed: 07/21/2016

Arsenic	0.714		ug/mL	0.720		99.2	84.5-114.1				
Barium	0.405		"	0.400		101	85-115				
Beryllium	0.155		"	0.160		97.1	85-115				
Cadmium	0.428		"	0.440		97.3	85-115				
Chromium	0.221		"	0.220		101	85-115				
Copper	0.873		"	0.760		115	85-115				
Lead	0.819		"	0.840		97.5	85-115				
Manganese	1.20		"	1.20		99.7	85-115				
Nickel	0.604		"	0.600		101	87.5-113.3				
Selenium	0.708		"	0.720		98.3	85-115				
Silver	0.777		"	0.829		93.7	85-114.9				
Zinc	0.574		"	0.580		99.0	85-115				

Batch BG61006 - EPA 3015A

Blank (BG61006-BLK1)

Prepared & Analyzed: 07/22/2016

Arsenic - Dissolved	ND	0.004	mg/L								
Barium - Dissolved	ND	0.010	"								
Beryllium - Dissolved	ND	0.001	"								
Cadmium - Dissolved	ND	0.003	"								
Chromium - Dissolved	ND	0.005	"								
Copper - Dissolved	ND	0.003	"								
Lead - Dissolved	ND	0.003	"								
Manganese - Dissolved	ND	0.005	"								
Nickel - Dissolved	ND	0.005	"								
Selenium - Dissolved	ND	0.010	"								
Silver - Dissolved	ND	0.005	"								
Zinc - Dissolved	ND	0.010	"								



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61006 - EPA 3015A

Duplicate (BG61006-DUP1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/22/2016				
Arsenic - Dissolved	ND	0.004	mg/L		ND					20	
Barium - Dissolved	0.061	0.011	"		0.060				1.31	20	
Beryllium - Dissolved	ND	0.001	"		ND					20	
Cadmium - Dissolved	ND	0.003	"		ND					20	
Chromium - Dissolved	ND	0.006	"		ND					20	
Copper - Dissolved	0.036	0.003	"		0.046				23.7	20	Non-dir.
Lead - Dissolved	ND	0.003	"		ND					20	
Manganese - Dissolved	0.210	0.006	"		0.207				1.55	20	
Nickel - Dissolved	ND	0.006	"		ND					20	
Selenium - Dissolved	ND	0.011	"		ND					20	
Silver - Dissolved	ND	0.006	"		ND					20	
Zinc - Dissolved	0.032	0.011	"		0.037				15.4	20	

Matrix Spike (BG61006-MS1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/22/2016				
Arsenic - Dissolved	2.64	0.004	mg/L	2.22	ND	119	75-125				
Barium - Dissolved	2.73	0.011	"	2.22	0.060	120	75-125				
Beryllium - Dissolved	0.064	0.001	"	0.0556	ND	115	75-125				
Cadmium - Dissolved	0.066	0.003	"	0.0556	ND	118	75-125				
Chromium - Dissolved	0.254	0.006	"	0.222	ND	114	75-125				
Copper - Dissolved	0.380	0.003	"	0.278	0.046	120	75-125				
Lead - Dissolved	0.629	0.003	"	0.556	ND	113	75-125				
Manganese - Dissolved	0.875	0.006	"	0.556	0.207	120	75-125				
Nickel - Dissolved	0.649	0.006	"	0.556	ND	117	75-125				
Selenium - Dissolved	2.62	0.011	"	2.22	ND	118	75-125				
Silver - Dissolved	0.060	0.006	"	0.0556	ND	109	75-125				
Zinc - Dissolved	0.641	0.011	"	0.556	0.037	109	75-125				

Reference (BG61006-SRM1)		Prepared & Analyzed: 07/22/2016									
Arsenic - Dissolved	0.718		ug/mL	0.720		99.7	84.5-114.1				
Barium - Dissolved	0.406		"	0.400		101	85-115				
Beryllium - Dissolved	0.154		"	0.160		96.2	85-115				
Cadmium - Dissolved	0.424		"	0.440		96.4	85-115				
Chromium - Dissolved	0.218		"	0.220		99.3	85-115				
Copper - Dissolved	0.859		"	0.760		113	85-115				
Lead - Dissolved	0.820		"	0.840		97.7	85-115				
Manganese - Dissolved	1.19		"	1.20		98.8	85-115				
Nickel - Dissolved	0.601		"	0.600		100	87.5-113.3				
Selenium - Dissolved	0.711		"	0.720		98.8	85-115				
Silver - Dissolved	0.769		"	0.829		92.7	85-114.9				
Zinc - Dissolved	0.577		"	0.580		99.4	85-115				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60821 - EPA 7473 water

Blank (BG60821-BLK1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	ND	0.00020	mg/L								
Mercury	ND	0.20	ug/L								

Duplicate (BG60821-DUP1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	ND	0.00020	mg/L		ND					20	
Mercury	ND	0.20	ug/L		ND					20	

Matrix Spike (BG60821-MS1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/20/2016

Mercury	0.00160		mg/kg	0.00200	ND	80.2	75-125				
Mercury - Dissolved	0.00189		mg/L	0.00200	ND	94.4	75-125				

Reference (BG60821-SRM1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	0.0024899		mg/L	0.00230		108	61.3-135				
Mercury	0.00249		mg/kg	0.00230		108	61.3-135				



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60817 - Analysis Preparation

Blank (BG60817-BLK1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	ND	10.0	ug/L								
LCS (BG60817-BS1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	537	10.0	ug/L	500		107	80-120				
Duplicate (BG60817-DUP1) *Source sample: 16G0638-01 (MW-1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	ND	10.0	ug/L		ND					20	
Matrix Spike (BG60817-MS1) *Source sample: 16G0638-01 (MW-1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	573	10.0	ug/L	500	ND	115	75-125				

Batch BG60842 - Analysis Preparation

Blank (BG60842-BLK1)								Prepared & Analyzed: 07/20/2016			
Cyanide, total	ND	10.0	ug/L								
Reference (BG60842-SRM1)								Prepared & Analyzed: 07/20/2016			
Cyanide, total	179	10.0	ug/L	10000		1.79	0-200				

Batch BG61073 - Analysis Preparation

Blank (BG61073-BLK1)								Prepared & Analyzed: 07/25/2016			
Cyanide, total	ND	10.0	ug/L								
LCS (BG61073-BS1)								Prepared & Analyzed: 07/25/2016			
Cyanide, total	158	10.0	ug/L	200		79.0	76.2-107				



Wet Chemistry Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61073 - Analysis Preparation

Duplicate (BG61073-DUP1)		*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/25/2016			
Cyanide, total	ND	10.0	ug/L		ND					15	
Matrix Spike (BG61073-MS1)		*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/25/2016			
Cyanide, total	158	10.0	ug/L	200	ND	79.0	79-105				



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16G0638-01	MW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-02	MW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-03	MW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-04	MW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-05	Equipment Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-06	GW Dupe	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-07	Trip Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

S-08	The recovery of this surrogate was outside of QC limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-RPD	Sample conc. <5 X reporting limit.
M-LSRD	Original sample conc <50 X reporting limit.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-01	This result was reported from an analysis conducted outside of the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.



If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



120 RESEARCH DR.
K ANALYTICAL LABORATO

Page 1 of 1

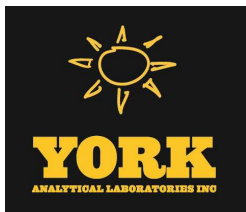
York Project No. 1660638

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested
signature binds you to York's Std. Terms & Conditions.

Port To:	Invoice To:	YOUR Project ID
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Report Type

100



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/22/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0568

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/22/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0568

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 15, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0568-01	IA-1	Indoor Ambient Air	07/14/2016	07/15/2016
16G0568-02	OA-1	Outdoor Ambient Air	07/14/2016	07/15/2016
16G0568-03	SS-1	Soil Vapor	07/14/2016	07/15/2016
16G0568-04	SS-2	Soil Vapor	07/14/2016	07/15/2016
16G0568-05	SS-3	Soil Vapor	07/14/2016	07/15/2016
16G0568-06	SV-1	Soil Vapor	07/14/2016	07/15/2016
16G0568-07	SV-2	Soil Vapor	07/14/2016	07/15/2016

General Notes for York Project (SDG) No.: 16G0568

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/22/2016





Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.

16G0568

Client Project ID

255 Randolph Street

Matrix

Indoor Ambient Air

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.74	0.74	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
71-55-6	1,1,1-Trichloroethane	37		ug/m ³	0.59	0.59	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.74	0.74	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.82	0.82	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.59	0.59	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-35-4	1,1-Dichloroethylene	1.1		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.80	0.80	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-63-6	1,2,4-Trimethylbenzene	3.6		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.83	0.83	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.50	0.50	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.75	0.75	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-67-8	1,3,5-Trimethylbenzene	1.2		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.71	0.71	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.50	0.50	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.77	0.77	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
78-93-3	2-Butanone	3.7		ug/m ³	0.32	0.32	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.88	0.88	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Indoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	1.7	1.7	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-10-1	4-Methyl-2-pentanone	4.8		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
67-64-1	Acetone	35		ug/m ³	0.51	0.51	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	0.23	0.23	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
71-43-2	Benzene	0.48		ug/m ³	0.34	0.34	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.56	0.56	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.72	0.72	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-25-2	Bromoform	ND		ug/m ³	1.1	1.1	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.42	0.42	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	0.33	0.33	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
56-23-5	Carbon tetrachloride	1.0		ug/m ³	0.17	0.17	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.28	0.28	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
67-66-3	Chloroform	1.1		ug/m ³	0.52	0.52	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
74-87-3	Chloromethane	1.3		ug/m ³	0.22	0.22	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
156-59-2	cis-1,2-Dichloroethylene	5.5		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
110-82-7	Cyclohexane	ND		ug/m ³	0.37	0.37	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.92	0.92	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-71-8	Dichlorodifluoromethane	2.3		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
141-78-6	* Ethyl acetate	1.3		ug/m ³	0.77	0.77	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
100-41-4	Ethyl Benzene	0.84		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Indoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	Isopropanol	ND		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.39	0.39	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-09-2	Methylene chloride	0.86		ug/m ³	0.75	0.75	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
142-82-5	n-Heptane	1.3		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
110-54-3	n-Hexane	0.64		ug/m ³	0.38	0.38	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-47-6	o-Xylene	1.2		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
179601-23-1	p- & m- Xylenes	3.3		ug/m ³	0.93	0.93	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
622-96-8	* p-Ethyltoluene	2.8		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
115-07-1	* Propylene	1.2		ug/m ³	0.19	0.19	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
100-42-5	Styrene	0.69		ug/m ³	0.46	0.46	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
127-18-4	Tetrachloroethylene	740		ug/m ³	1.7	1.7	10.08	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 08:01	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.63	0.63	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-88-3	Toluene	4.1		ug/m ³	0.41	0.41	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-01-6	Trichloroethylene	370		ug/m ³	1.4	1.4	10.08	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 08:01	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.60	0.60	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.38	0.38	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.27	0.27	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.

16G0568

Client Project ID

255 Randolph Street

Matrix

Outdoor Ambient Air

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
71-55-6	1,1,1-Trichloroethane	1.4		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.74	0.74	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
95-63-6	1,2,4-Trimethylbenzene	4.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.70	0.70	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
108-67-8	1,3,5-Trimethylbenzene	1.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.66	0.66	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
78-93-3	2-Butanone	1.9		ug/m ³	0.29	0.29	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.82	0.82	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	1.6	1.6	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Outdoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-64-1	Acetone	11		ug/m ³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	0.22	0.22	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
71-43-2	Benzene	1.1		ug/m ³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-25-2	Bromoform	ND		ug/m ³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-15-0	Carbon disulfide	0.87		ug/m ³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-66-3	Chloroform	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
74-87-3	Chloromethane	1.2		ug/m ³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
110-82-7	Cyclohexane	0.83		ug/m ³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-71-8	Dichlorodifluoromethane	2.3		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
100-41-4	Ethyl Benzene	2.5		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-63-0	Isopropanol	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Outdoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-09-2	Methylene chloride	2.2		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
142-82-5	n-Heptane	1.8		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
110-54-3	n-Hexane	4.7		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
95-47-6	o-Xylene	2.8		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
179601-23-1	p- & m- Xylenes	8.6		ug/m ³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
622-96-8	* p-Ethyltoluene	5.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
115-07-1	* Propylene	2.2		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
100-42-5	Styrene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
127-18-4	Tetrachloroethylene	30		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.59	0.59	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
108-88-3	Toluene	11		ug/m ³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
79-01-6	Trichloroethylene	16		ug/m ³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	0.44	0.44	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	1100		ug/m ³	13	13	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
71-55-6	1,1,1-Trichloroethane	200000		ug/m ³	860	860	1568.8	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 14:46	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
79-00-5	1,1,2-Trichloroethane	350		ug/m ³	11	11	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-34-3	1,1-Dichloroethane	1100		ug/m ³	7.9	7.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-35-4	1,1-Dichloroethylene	5100		ug/m ³	160	160	392.2	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:06	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-63-6	1,2,4-Trimethylbenzene	14		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
107-06-2	1,2-Dichloroethane	360		ug/m ³	7.9	7.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	9.1	9.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	9.1	9.1	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
78-93-3	2-Butanone	17		ug/m ³	5.8	5.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	16	16	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	31	31	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-64-1	Acetone	160		ug/m ³	9.3	9.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.3	4.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
71-43-2	Benzene	210		ug/m ³	6.3	6.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	10	10	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-27-4	Bromodichloromethane	22		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-25-2	Bromoform	ND		ug/m ³	20	20	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.6	7.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-15-0	Carbon disulfide	16		ug/m ³	6.1	6.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
56-23-5	Carbon tetrachloride	310		ug/m ³	3.1	3.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-90-7	Chlorobenzene	300		ug/m ³	9.0	9.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-00-3	Chloroethane	ND		ug/m ³	5.2	5.2	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-66-3	Chloroform	3400		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
74-87-3	Chloromethane	ND		ug/m ³	4.0	4.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
156-59-2	cis-1,2-Dichloroethylene	2100		ug/m ³	7.8	7.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.9	8.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
110-82-7	Cyclohexane	35		ug/m ³	6.8	6.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	17	17	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.7	9.7	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-41-4	Ethyl Benzene	ND		ug/m ³	8.5	8.5	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	21	21	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	7.1	7.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-09-2	Methylene chloride	66		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
142-82-5	n-Heptane	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
110-54-3	n-Hexane	29		ug/m ³	6.9	6.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-47-6	o-Xylene	12		ug/m ³	8.5	8.5	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
179601-23-1	p- & m- Xylenes	31		ug/m ³	17	17	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
622-96-8	* p-Ethyltoluene	13		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
115-07-1	* Propylene	ND		ug/m ³	3.4	3.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-42-5	Styrene	ND		ug/m ³	8.4	8.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
127-18-4	Tetrachloroethylene	5700000		ug/m ³	2800	2800	16729	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/22/2016 10:12	LDS
109-99-9	* Tetrahydrofuran	120		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-88-3	Toluene	91		ug/m ³	7.4	7.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
156-60-5	trans-1,2-Dichloroethylene	300		ug/m ³	7.8	7.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.9	8.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
79-01-6	Trichloroethylene	4100000		ug/m ³	2200	2200	16729	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/22/2016 10:12	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	11	11	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.9	6.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.6	8.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-01-4	Vinyl Chloride	8.0		ug/m ³	5.0	5.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
71-55-6	1,1,1-Trichloroethane	37		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	7.4	7.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-63-6	1,2,4-Trimethylbenzene	21		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.4	7.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.5	8.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.5	8.5	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
78-93-3	2-Butanone	8.6		ug/m ³	5.4	5.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-64-1	Acetone	42		ug/m ³	8.7	8.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
71-43-2	Benzene	15		ug/m ³	5.9	5.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.5	9.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.1	7.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	5.7	5.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	2.9	2.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.4	8.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.8	4.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-66-3	Chloroform	ND		ug/m ³	8.9	8.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.3	8.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
110-82-7	Cyclohexane	16		ug/m ³	6.3	6.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.1	9.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-41-4	Ethyl Benzene	61		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.6	6.6	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-09-2	Methylene chloride	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
142-82-5	n-Heptane	29		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
110-54-3	n-Hexane	41		ug/m ³	6.5	6.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-47-6	o-Xylene	76		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
179601-23-1	p- & m- Xylenes	260		ug/m ³	16	16	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
622-96-8	* p-Ethyltoluene	20		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
115-07-1	* Propylene	20		ug/m ³	3.2	3.2	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-42-5	Styrene	ND		ug/m ³	7.8	7.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
127-18-4	Tetrachloroethylene	2000		ug/m ³	3.1	3.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-88-3	Toluene	120		ug/m ³	6.9	6.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.3	8.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-01-6	Trichloroethylene	640		ug/m ³	2.5	2.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
71-55-6	1,1,1-Trichloroethane	1200		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	17		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-34-3	1,1-Dichloroethane	160		ug/m ³	7.4	7.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-35-4	1,1-Dichloroethylene	9.5		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-63-6	1,2,4-Trimethylbenzene	32		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.4	7.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-67-8	1,3,5-Trimethylbenzene	9.0		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
78-93-3	2-Butanone	24		ug/m ³	5.4	5.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-64-1	Acetone	110		ug/m ³	8.7	8.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
71-43-2	Benzene	ND		ug/m ³	5.9	5.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.5	9.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.1	7.1	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-15-0	Carbon disulfide	6.3		ug/m ³	5.7	5.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
56-23-5	Carbon tetrachloride	400		ug/m ³	2.9	2.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.9	4.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-66-3	Chloroform	300		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
156-59-2	cis-1,2-Dichloroethylene	830		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
110-82-7	Cyclohexane	ND		ug/m ³	6.3	6.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.1	9.1	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-41-4	Ethyl Benzene	11		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.6	6.6	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-09-2	Methylene chloride	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
142-82-5	n-Heptane	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
110-54-3	n-Hexane	12		ug/m ³	6.5	6.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-47-6	o-Xylene	20		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
179601-23-1	p- & m- Xylenes	57		ug/m ³	16	16	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
622-96-8	* p-Ethyltoluene	25		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
115-07-1	* Propylene	ND		ug/m ³	3.2	3.2	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-42-5	Styrene	ND		ug/m ³	7.8	7.8	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
127-18-4	Tetrachloroethylene	19000		ug/m ³	31	31	184	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:55	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-88-3	Toluene	130		ug/m ³	6.9	6.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
156-60-5	trans-1,2-Dichloroethylene	30		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-01-6	Trichloroethylene	32000		ug/m ³	25	25	184	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:55	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
71-55-6	1,1,1-Trichloroethane	55		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-34-3	1,1-Dichloroethane	19		ug/m ³	8.1	8.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-63-6	1,2,4-Trimethylbenzene	39		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	8.1	8.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-67-8	1,3,5-Trimethylbenzene	11		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	13	13	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
78-93-3	2-Butanone	97		ug/m ³	5.9	5.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	16	16	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	31	31	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	11		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-64-1	Acetone	300		ug/m ³	9.5	9.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.3	4.3	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
71-43-2	Benzene	17		ug/m ³	6.4	6.4	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	10	10	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	13	13	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-25-2	Bromoform	ND		ug/m ³	21	21	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.8	7.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-15-0	Carbon disulfide	32		ug/m ³	6.2	6.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	3.1	3.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-00-3	Chloroethane	ND		ug/m ³	5.3	5.3	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-66-3	Chloroform	ND		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
74-87-3	Chloromethane	ND		ug/m ³	4.1	4.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
156-59-2	cis-1,2-Dichloroethylene	1200		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	9.1	9.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
110-82-7	Cyclohexane	ND		ug/m ³	6.9	6.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	17	17	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.9	9.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
100-41-4	Ethyl Benzene	16		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	21	21	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	7.2	7.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-09-2	Methylene chloride	26		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
142-82-5	n-Heptane	14		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
110-54-3	n-Hexane	42		ug/m ³	7.0	7.0	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-47-6	o-Xylene	26		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
179601-23-1	p- & m- Xylenes	75		ug/m ³	17	17	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
622-96-8	* p-Ethyltoluene	32		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
115-07-1	* Propylene	73		ug/m ³	3.4	3.4	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
100-42-5	Styrene	ND		ug/m ³	8.5	8.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
127-18-4	Tetrachloroethylene	1600		ug/m ³	3.4	3.4	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
109-99-9	* Tetrahydrofuran	39		ug/m ³	12	12	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
108-88-3	Toluene	160		ug/m ³	7.5	7.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
156-60-5	trans-1,2-Dichloroethylene	110		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	9.1	9.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-01-6	Trichloroethylene	1900		ug/m ³	2.7	2.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	7.0	7.0	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-01-4	Vinyl Chloride	57		ug/m ³	5.1	5.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
71-55-6	1,1,1-Trichloroethane	260		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	97		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	7.5	7.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-63-6	1,2,4-Trimethylbenzene	38		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.5	7.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.6	8.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-67-8	1,3,5-Trimethylbenzene	12		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.6	8.6	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
78-93-3	2-Butanone	96		ug/m ³	5.5	5.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	20		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-64-1	Acetone	150		ug/m ³	8.8	8.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
71-43-2	Benzene	9.5		ug/m ³	5.9	5.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.6	9.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.2	7.2	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-15-0	Carbon disulfide	23		ug/m ³	5.8	5.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
56-23-5	Carbon tetrachloride	20		ug/m ³	2.9	2.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.5	8.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.9	4.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-66-3	Chloroform	20		ug/m ³	9.0	9.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
156-59-2	cis-1,2-Dichloroethylene	37		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
110-82-7	Cyclohexane	13		ug/m ³	6.4	6.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.2	9.2	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
100-41-4	Ethyl Benzene	19		ug/m ³	8.0	8.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.7	6.7	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-09-2	Methylene chloride	14		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
142-82-5	n-Heptane	9.1		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
110-54-3	n-Hexane	25		ug/m ³	6.5	6.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-47-6	o-Xylene	29		ug/m ³	8.0	8.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
179601-23-1	p- & m- Xylenes	83		ug/m ³	16	16	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
622-96-8	* p-Ethyltoluene	34		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
115-07-1	* Propylene	36		ug/m ³	3.2	3.2	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
100-42-5	Styrene	ND		ug/m ³	7.9	7.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
127-18-4	Tetrachloroethylene	1800		ug/m ³	3.1	3.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
109-99-9	* Tetrahydrofuran	35		ug/m ³	11	11	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
108-88-3	Toluene	170		ug/m ³	7.0	7.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-01-6	Trichloroethylene	1800		ug/m ³	2.5	2.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	10		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.1	8.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Analytical Batch Summary

Batch ID: BG60771

Preparation Method: EPA TO15 PREP

Prepared By: LDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0568-01	IA-1	07/19/16
16G0568-01RE1	IA-1	07/19/16
16G0568-02	OA-1	07/19/16
16G0568-03	SS-1	07/19/16
16G0568-03RE1	SS-1	07/19/16
16G0568-03RE2	SS-1	07/19/16
16G0568-04	SS-2	07/19/16
16G0568-05	SS-3	07/19/16
16G0568-05RE1	SS-3	07/19/16
16G0568-06	SV-1	07/19/16
16G0568-07	SV-2	07/19/16
BG60771-BLK1	Blank	07/19/16
BG60771-BS1	LCS	07/19/16
BG60771-DUP1	Duplicate	07/19/16

Batch ID: BG60937

Preparation Method: EPA TO15 PREP

Prepared By: LDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0568-03RE3	SS-1	07/19/16
BG60937-BLK1	Blank	07/21/16
BG60937-BS1	LCS	07/21/16



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60732 - EPA TO15 PREP

Blank (BG60732-BLK1)

Prepared & Analyzed: 07/18/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.40	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
n-Heptane	ND	0.41	"
n-Hexane	ND	0.35	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60732 - EPA TO15 PREP

Blank (BG60732-BLK1)

Prepared & Analyzed: 07/18/2016

o-Xylene	ND	0.43	ug/m ³
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.17	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.26	"

Surrogate: *p*-Bromofluorobenzene 10.0 ppbv 10.0 100 72-118

Batch BG60771 - EPA TO15 PREP

Blank (BG60771-BLK1)

Prepared & Analyzed: 07/19/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

Blank (BG60771-BLK1)

Prepared & Analyzed: 07/19/2016

Carbon tetrachloride	ND	0.16	ug/m ³								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.40	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.26	"								
Surrogate: p-Bromofluorobenzene	10.0		ppbv	10.0		100	72-118				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

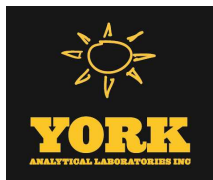
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

LCS (BG60771-BS1)

Prepared & Analyzed: 07/19/2016

1,1,1,2-Tetrachloroethane	10.1		ppbv	10.0		101	82-126				
1,1,1-Trichloroethane	10.7		"	10.0		107	70-130				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.78		"	10.0		97.8	70-130				
1,1,2-Trichloroethane	10.6		"	10.0		106	70-130				
1,1-Dichloroethane	10.2		"	10.0		102	70-130				
1,1-Dichloroethylene	9.61		"	10.0		96.1	70-130				
1,2,4-Trichlorobenzene	6.94		"	10.0		69.4	70-130	Low Bias			
1,2,4-Trimethylbenzene	10.6		"	10.0		106	70-130				
1,2-Dibromoethane	10.8		"	10.0		108	70-130				
1,2-Dichlorobenzene	10.5		"	10.0		105	70-130				
1,2-Dichloroethane	10.1		"	10.0		101	70-130				
1,2-Dichloropropane	10.8		"	10.0		108	70-130				
1,2-Dichlorotetrafluoroethane	9.61		"	10.0		96.1	70-130				
1,3,5-Trimethylbenzene	10.8		"	10.0		108	70-130				
1,3-Butadiene	10.3		"	10.0		103	70-130				
1,3-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,3-Dichloropropane	10.5		"	10.0		105	70-130				
1,4-Dichlorobenzene	10.6		"	10.0		106	70-130				
1,4-Dioxane	9.71		"	10.0		97.1	70-130				
2-Butanone	9.96		"	10.0		99.6	70-130				
2-Hexanone	8.95		"	10.0		89.5	70-130				
3-Chloropropene	10.6		"	10.0		106	70-130				
4-Methyl-2-pentanone	9.95		"	10.0		99.5	70-130				
Acetone	9.48		"	10.0		94.8	70-130				
Acrylonitrile	9.71		"	10.0		97.1	70-130				
Benzene	9.61		"	10.0		96.1	70-130				
Benzyl chloride	7.64		"	10.0		76.4	70-130				
Bromodichloromethane	11.0		"	10.0		110	70-130				
Bromoform	10.9		"	10.0		109	70-130				
Bromomethane	9.28		"	10.0		92.8	70-130				
Carbon disulfide	11.0		"	10.0		110	70-130				
Carbon tetrachloride	10.9		"	10.0		109	70-130				
Chlorobenzene	10.5		"	10.0		105	70-130				
Chloroethane	10.2		"	10.0		102	70-130				
Chloroform	10.0		"	10.0		100	70-130				
Chloromethane	10.6		"	10.0		106	70-130				
cis-1,2-Dichloroethylene	10.1		"	10.0		101	70-130				
cis-1,3-Dichloropropylene	12.1		"	10.0		121	70-130				
Cyclohexane	10.3		"	10.0		103	70-130				
Dibromochloromethane	10.8		"	10.0		108	70-130				
Dichlorodifluoromethane	10.1		"	10.0		101	70-130				
Ethyl acetate	10.0		"	10.0		100	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	9.14		"	10.0		91.4	70-130				
Isopropanol	7.87		"	10.0		78.7	70-130				
Methyl Methacrylate	8.60		"	10.0		86.0	70-130				
Methyl tert-butyl ether (MTBE)	10.2		"	10.0		102	70-130				
Methylene chloride	10.2		"	10.0		102	70-130				
n-Heptane	10.6		"	10.0		106	70-130				
n-Hexane	10.3		"	10.0		103	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

LCS (BG60771-BS1)

Prepared & Analyzed: 07/19/2016

o-Xylene	11.3		ppbv	10.0		113	70-130				
p- & m- Xylenes	22.5		"	20.0		113	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	6.57		"	10.0		65.7	70-130	Low Bias			
Styrene	11.1		"	10.0		111	70-130				
Tetrachloroethylene	9.71		"	10.0		97.1	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.1		"	10.0		101	70-130				
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
trans-1,3-Dichloropropylene	8.69		"	10.0		86.9	70-130				
Trichloroethylene	11.1		"	10.0		111	70-130				
Trichlorofluoromethane (Freon 11)	9.71		"	10.0		97.1	70-130				
Vinyl acetate	4.96		"	10.0		49.6	70-130	Low Bias			
Vinyl bromide	10.1		"	10.0		101	70-130				
Vinyl Chloride	10.5		"	10.0		105	70-130				
Surrogate: p-Bromofluorobenzene	9.95		"	10.0		99.5	72-118				

Duplicate (BG60771-DUP1)

*Source sample: 16G0568-02 (OA-1)

Prepared: 07/19/2016 Analyzed: 07/20/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³		ND					200	
1,1,1-Trichloroethane	1.4	0.55	"		1.4				3.92	25	
1,1,2,2-Tetrachloroethane	ND	0.69	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"		ND					25	
1,1,2-Trichloroethane	ND	0.55	"		ND					25	
1,1-Dichloroethane	ND	0.40	"		ND					25	
1,1-Dichloroethylene	ND	0.40	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.74	"		ND					25	
1,2,4-Trimethylbenzene	4.4	0.49	"		4.4				0.00	25	
1,2-Dibromoethane	ND	0.77	"		ND					25	
1,2-Dichlorobenzene	ND	0.60	"		ND					25	
1,2-Dichloroethane	ND	0.40	"		ND					25	
1,2-Dichloropropane	ND	0.46	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	0.70	"		ND					25	
1,3,5-Trimethylbenzene	1.5	0.49	"		1.4				3.39	25	
1,3-Butadiene	ND	0.66	"		ND					25	
1,3-Dichlorobenzene	ND	0.60	"		ND					25	
1,3-Dichloropropane	ND	0.46	"		ND					25	
1,4-Dichlorobenzene	ND	0.60	"		ND					25	
1,4-Dioxane	ND	0.72	"		ND					25	
2-Butanone	1.9	0.29	"		1.9				4.65	25	
2-Hexanone	ND	0.82	"		ND					25	
3-Chloropropene	ND	1.6	"		ND					25	
4-Methyl-2-pentanone	ND	0.41	"		ND					25	
Acetone	11	0.48	"		11				0.864	25	
Acrylonitrile	ND	0.22	"		ND					25	
Benzene	1.1	0.32	"		1.1				0.00	25	
Benzyl chloride	ND	0.52	"		ND					25	
Bromodichloromethane	ND	0.67	"		ND					25	
Bromoform	ND	1.0	"		ND					25	
Bromomethane	ND	0.39	"		ND					25	
Carbon disulfide	0.84	0.31	"		0.87				3.64	25	
Carbon tetrachloride	ND	0.16	"		ND					25	
Chlorobenzene	ND	0.46	"		ND					25	



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60771 - EPA TO15 PREP											
Duplicate (BG60771-DUP1)	*Source sample: 16G0568-02 (OA-1)						Prepared: 07/19/2016 Analyzed: 07/20/2016				
Chloroethane	ND	0.26	ug/m ³		ND					25	
Chloroform	ND	0.49	"		ND					25	
Chloromethane	1.2	0.21	"		1.2				3.39	25	
cis-1,2-Dichloroethylene	ND	0.40	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Cyclohexane	0.86	0.34	"		0.83				4.08	25	
Dibromochloromethane	ND	0.85	"		ND					25	
Dichlorodifluoromethane	2.3	0.49	"		2.3				2.15	25	
Ethyl acetate	ND	0.72	"		ND					25	
Ethyl Benzene	2.5	0.43	"		2.5				0.00	25	
Hexachlorobutadiene	ND	1.1	"		ND					25	
Isopropanol	ND	0.49	"		ND					25	
Methyl Methacrylate	ND	0.41	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	0.36	"		ND					25	
Methylene chloride	2.2	0.69	"		2.2				0.00	25	
n-Heptane	1.8	0.41	"		1.8				2.30	25	
n-Hexane	4.6	0.35	"		4.7				1.53	25	
o-Xylene	2.8	0.43	"		2.8				1.55	25	
p- & m- Xylenes	8.6	0.87	"		8.6				0.504	25	
p-Ethyltoluene	5.3	0.49	"		5.4				1.85	25	
Propylene	2.3	0.17	"		2.2				4.65	25	
Styrene	ND	0.43	"		ND					25	
Tetrachloroethylene	30	0.17	"		30				1.80	25	
Tetrahydrofuran	ND	0.59	"		ND					25	
Toluene	11	0.38	"		11				0.678	25	
trans-1,2-Dichloroethylene	ND	0.40	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Trichloroethylene	17	0.13	"		16				2.61	25	
Trichlorofluoromethane (Freon 11)	1.2	0.56	"		1.2				0.00	25	
Vinyl acetate	ND	0.35	"		ND					25	
Vinyl bromide	ND	0.44	"		ND					25	
Vinyl Chloride	ND	0.26	"		ND					25	
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>ppbv</i>	<i>10.0</i>		<i>101</i>	<i>72-118</i>				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.40	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
n-Heptane	ND	0.41	"
n-Hexane	ND	0.35	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

o-Xylene	ND	0.43	ug/m ³
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.17	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.26	"

Surrogate: <i>p</i> -Bromofluorobenzene	9.97	ppbv	10.0	99.7	72-118
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LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1,2-Tetrachloroethane	10.2	ppbv	10.0	102	82-126
1,1,1-Trichloroethane	10.2	"	10.0	102	70-130
1,1,2,2-Tetrachloroethane	10.2	"	10.0	102	70-130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.33	"	10.0	93.3	70-130
1,1,2-Trichloroethane	10.5	"	10.0	105	70-130
1,1-Dichloroethane	10.2	"	10.0	102	70-130
1,1-Dichloroethylene	9.29	"	10.0	92.9	70-130
1,2,4-Trichlorobenzene	7.10	"	10.0	71.0	70-130
1,2,4-Trimethylbenzene	10.6	"	10.0	106	70-130
1,2-Dibromoethane	10.7	"	10.0	107	70-130
1,2-Dichlorobenzene	10.7	"	10.0	107	70-130
1,2-Dichloroethane	9.83	"	10.0	98.3	70-130
1,2-Dichloropropane	10.9	"	10.0	109	70-130
1,2-Dichlorotetrafluoroethane	9.33	"	10.0	93.3	70-130
1,3,5-Trimethylbenzene	10.9	"	10.0	109	70-130
1,3-Butadiene	8.51	"	10.0	85.1	70-130
1,3-Dichlorobenzene	10.8	"	10.0	108	70-130
1,3-Dichloropropane	10.7	"	10.0	107	70-130
1,4-Dichlorobenzene	10.7	"	10.0	107	70-130
1,4-Dioxane	9.69	"	10.0	96.9	70-130
2-Butanone	9.95	"	10.0	99.5	70-130
2-Hexanone	9.56	"	10.0	95.6	70-130
3-Chloropropene	10.7	"	10.0	107	70-130
4-Methyl-2-pentanone	10.2	"	10.0	102	70-130
Acetone	9.45	"	10.0	94.5	70-130
Acrylonitrile	9.54	"	10.0	95.4	70-130
Benzene	9.19	"	10.0	91.9	70-130
Benzyl chloride	7.64	"	10.0	76.4	70-130
Bromodichloromethane	10.9	"	10.0	109	70-130
Bromoform	10.8	"	10.0	108	70-130
Bromomethane	9.02	"	10.0	90.2	70-130
Carbon disulfide	10.6	"	10.0	106	70-130
Carbon tetrachloride	10.3	"	10.0	103	70-130
Chlorobenzene	10.6	"	10.0	106	70-130



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

Chloroethane	9.96		ppbv	10.0		99.6	70-130				
Chloroform	9.66		"	10.0		96.6	70-130				
Chloromethane	8.50		"	10.0		85.0	70-130				
cis-1,2-Dichloroethylene	9.93		"	10.0		99.3	70-130				
cis-1,3-Dichloropropylene	12.3		"	10.0		123	70-130				
Cyclohexane	10.1		"	10.0		101	70-130				
Dibromochloromethane	10.6		"	10.0		106	70-130				
Dichlorodifluoromethane	10.0		"	10.0		100	70-130				
Ethyl acetate	9.81		"	10.0		98.1	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	9.21		"	10.0		92.1	70-130				
Isopropanol	7.89		"	10.0		78.9	70-130				
Methyl Methacrylate	8.50		"	10.0		85.0	70-130				
Methyl tert-butyl ether (MTBE)	9.97		"	10.0		99.7	70-130				
Methylene chloride	10.1		"	10.0		101	70-130				
n-Heptane	10.3		"	10.0		103	70-130				
n-Hexane	10.1		"	10.0		101	70-130				
o-Xylene	11.3		"	10.0		113	70-130				
p- & m- Xylenes	22.2		"	20.0		111	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	3.98		"	10.0		39.8	70-130	Low Bias			
Styrene	11.1		"	10.0		111	70-130				
Tetrachloroethylene	9.58		"	10.0		95.8	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.0		"	10.0		100	70-130				
trans-1,2-Dichloroethylene	10.3		"	10.0		103	70-130				
trans-1,3-Dichloropropylene	8.74		"	10.0		87.4	70-130				
Trichloroethylene	11.2		"	10.0		112	70-130				
Trichlorofluoromethane (Freon 11)	9.27		"	10.0		92.7	70-130				
Vinyl acetate	4.77		"	10.0		47.7	70-130	Low Bias			
Vinyl bromide	9.83		"	10.0		98.3	70-130				
Vinyl Chloride	8.76		"	10.0		87.6	70-130				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.2</i>		<i>"</i>	<i>10.0</i>		<i>102</i>	<i>72-118</i>				



Notes and Definitions

QL-03	This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
CCV-A	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to detected analytes only.
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*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.

For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



Field Chain-of-Custody Record - AIR

Page 1 of 1

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 16G0568

YOUR Information Company: <u>Laurel Env. Ass.</u> Address: <u>53 West Hills Rd.</u> <u>Huntington Station, NY</u> Phone No. <u>631 673 0612</u> Contact Person: <u>Scott</u> E-Mail Address: <u>labresults@laurelenv.com</u>		Report To: Company: <u>Scott</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		Invoice To: Company: <u>Kathy</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		YOUR Project ID <u>255 Randolph St</u> Purchase Order No. _____		Turn-Around Time <input type="checkbox"/> RUSH - Same Day <input type="checkbox"/> RUSH - Next Day <input type="checkbox"/> RUSH - Two Day <input type="checkbox"/> RUSH - Three Day <input type="checkbox"/> RUSH - Four Day Standard(5-7 Days) <input type="checkbox"/>		Report Type/Deliverables <input type="checkbox"/> Summary Report <input type="checkbox"/> Summary w/ QA Summary <input type="checkbox"/> CT RCP Package <input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NY ASP B/CLP Pkg <input type="checkbox"/> NJDEP Reduced <input type="checkbox"/> Electronic Deliverables: <input type="checkbox"/> EDD (Specify Type) <input type="checkbox"/> Standard Excel <input type="checkbox"/> Regulatory Comparison Excel	
Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until all questions by York are resolved.											
Samples Collected/Authorized By (Signature) <u>Albert Kim</u> Name (printed)		Air Matrix Codes AI - INDOOR Ambient Air AO - OUTDOOR Amb. Air AE - Vapor Extraction Well/ Process Gas/Effluent AS - SOIL Vapor/Sub-Slab		TO15 Volatiles and Other Gas Analyses EPA TO-15 List EPA TO-14A List Tentatively Identified Compounds Air VPH Helium Methane OTHER		Detection Limits Required ≤ 1 ug/m ³ NYSDEC VI Limits (VI - report instructions) NJDEP low level Routine Survey Other		Special Instructions			

Sample Identification	Date Sampled	AIR Matrix	Canister Vacuum Before Sampling (in. Hg)	Canister Vacuum After Sampling (in. Hg)	Choose Analyses Needed from the Menu Above and Enter Below	Sampling Media
2A-1	7/14/16	AI	29	3	70-15	6 Liter Summa canister ✓ Tedlar Bag
0A-1		AO	30	4		6 Liter Summa canister ✓ Tedlar Bag
SS-1		AS	30	4		6 Liter Summa canister ✓ Tedlar Bag
SS-2			30	2		6 Liter Summa canister ✓ Tedlar Bag
SS-3			30	1		6 Liter Summa canister ✓ Tedlar Bag
SV-1			29	1		6 Liter Summa canister ✓ Tedlar Bag
SV-2			29	1		6 Liter Summa canister ✓ Tedlar Bag
						6 Liter Summa canister ✓ Tedlar Bag
						6 Liter Summa canister ✓ Tedlar Bag
						6 Liter Summa canister ✓ Tedlar Bag
						6 Liter Summa canister ✓ Tedlar Bag

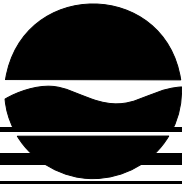
Comments

7/14/16
 Samples Relinquished By _____ Date/Time _____
 Samples Relinquished By _____ Date/Time _____

12Bader 7-15-16 12:30pm
 Samples Received By _____ Date/Time _____
Grace 7-15-16 1640
 Samples Received in LAB by _____ Date/Time _____

APPENDIX B

Part 375-6.8(a) Protection of Groundwater Applicable Soil Cleanup Objectives



Department of Environmental Conservation

Division of Environmental Remediation

6 NYCRR PART 375

Environmental Remediation Programs

Subparts 375-1 to 375- 4 & 375-6

Effective December 14, 2006

New York State Department of Environmental Conservation

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16 ^f	16 ^f	16 ^f	16 ^f	13 ^f	16 ^f
Barium	7440-39-3	350 ^f	400	400	10,000 ^d	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5 ^f	4.3	9.3	60	4	7.5
Chromium, hexavalent ^h	18540-29-9	22	110	400	800	1 ^e	19
Chromium, trivalent ^h	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 ^d	50	1,720
Total Cyanide ^h		27	27	27	10,000 ^d	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63 ^f	450
Manganese	7439-96-5	2,000 ^f	2,000 ^f	10,000 ^d	10,000 ^d	1600 ^f	2,000 ^f
Total Mercury		0.81 ^j	0.81 ^j	2.8 ^j	5.7 ^j	0.18 ^f	0.73
Nickel	7440-02-0	140	310	310	10,000 ^d	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9 ^f	4 ^f
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 ^d	10,000 ^d	10,000 ^d	109 ^f	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100 ^a	500 ^b	1,000 ^c	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 ^e	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 ^e	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 ^e	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04 ^g	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100 ^a	100 ^a	500 ^b	1,000 ^c	0.04 ^g	0.25
Dibenzofuran	132-64-9	14	59	350	1,000 ^c	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan II	33213-65-9	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan sulfate	1031-07-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	1,000 ^c
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100 ^a	100 ^a	500 ^b	1,000 ^c	20	98
Acenaphthylene	208-96-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	107
Anthracene	120-12-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benz(a)anthracene	56-55-3	1 ^f	1 ^f	5.6	11	NS	1 ^f
Benzo(a)pyrene	50-32-8	1 ^f	1 ^f	1 ^f	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 ^f	1 ^f	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1 ^f	3.9	56	110	NS	1 ^f
Dibenz(a,h)anthracene	53-70-3	0.33 ^e	0.33 ^e	0.56	1.1	NS	1,000 ^c
Fluoranthene	206-44-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Fluorene	86-73-7	100 ^a	100 ^a	500 ^b	1,000 ^c	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 ^f	0.5 ^f	5.6	11	NS	8.2
m-Cresol	108-39-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Naphthalene	91-20-3	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
p-Cresol	106-44-5	34	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8 ^e	0.8 ^e
Phenanthrene	85-01-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Phenol	108-95-2	100 ^a	100 ^a	500 ^b	1,000 ^c	30	0.33 ^e
Pyrene	129-00-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Volatiles							
1,1,1-Trichloroethane	71-55-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33
1,2-Dichlorobenzene	95-50-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02 ^f
cis-1,2-Dichloroethene	156-59-2	59	100 ^a	500 ^b	1,000 ^c	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1 ^e	0.1 ^e
Acetone	67-64-1	100 ^a	100 ^b	500 ^b	1,000 ^c	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100 ^a	100 ^a	500 ^b	1,000 ^c	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33 ^e	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100 ^a	100 ^a	500 ^b	1,000 ^c	100 ^a	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100 ^a	500 ^b	1,000 ^c	NS	0.93
Methylene chloride	75-09-2	51	100 ^a	500 ^b	1,000 ^c	12	0.05
n-Propylbenzene	103-65-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	3.9
sec-Butylbenzene	135-98-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	11
tert-Butylbenzene	98-06-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100 ^a	100 ^a	500 ^b	1,000 ^c	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100 ^a	100 ^a	500 ^b	1,000 ^c	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).

NS=Not specified. See [Technical Support Document \(TSD\)](#).

Footnotes

^a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

^b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

^c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

^d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

^e For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

^f For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

^g This SCO is derived from data on mixed isomers of BHC.

^h The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

ⁱ This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

^j This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

APPENDIX C

NYSDOH Soil Vapor/Indoor Air Matrices

Table 3.2 General format of a decision matrix

Sub-slab Vapor Concentration of Volatile Chemical (mcg/m³)	Indoor Air Concentration of Volatile Chemical (mcg/m³)		
	Concentration Range 1	Concentration Range 2	Concentration Range 3
Concentration Range 1	ACTION	ACTION	ACTION
Concentration Range 2	ACTION	ACTION	ACTION
Concentration Range 3	ACTION	ACTION	ACTION

Indoor air and sub-slab vapor concentration ranges in a matrix are selected based on a number of considerations in addition to health risks. For example, factors that are considered when selecting the ranges include, but are not limited to, the following:

- human health risks (i.e., cancer and non-cancer health effects) associated with exposure to the volatile chemical in air;
- the NYSDOH's guidelines for volatile chemicals in air [Table 3.1];
- background concentrations of volatile chemicals in air [Section 3.2.4];
- analytical capabilities currently available; and
- attenuation factors (i.e., the ratio of indoor air to sub-slab vapor concentrations).

3.4.2 Matrices

The NYSDOH has developed two matrices, which are included at the end of Section 3.4, to use as tools in making decisions when soil vapor may be entering buildings. The first decision matrix was originally developed for TCE and the second for PCE. As summarized in Table 3.3, four chemicals have been assigned to the two matrices to date.

Table 3.3 Volatile chemicals and their decision matrices

Chemical	Soil Vapor/Indoor Air Matrix*
Carbon tetrachloride	Matrix 1
Tetrachloroethene (PCE)	Matrix 2
1,1,1-Trichloroethane (1,1,1-TCA)	Matrix 2
Trichloroethene (TCE)	Matrix 1

*The decision matrices are available at the end of Section 3.4.

Because the matrices are risk management tools and consider a number of factors, the NYSDOH intends to assign chemicals to one of these two matrices, if possible. For example, if a chemical other than those already assigned to a matrix is identified as a chemical of concern during a soil vapor intrusion investigation, assignment of that chemical into one of the existing decision matrices will be considered by the NYSDOH. Factors that will be considered in assigning a chemical to a matrix include, but are not limited to, the following:

- a. human health risks, including such factors as a chemical's ability to cause cancer, reproductive, developmental, liver, kidney, nervous system, immune system or other effects, in animals and humans and the doses that may cause those effects;
- b. the data gaps in its toxicologic database;
- c. background concentrations of volatile chemicals in indoor air [Section 3.2.4]; and
- d. analytical capabilities currently available.

If the NYSDOH determines that the assignment of the chemical into an existing matrix is inappropriate, then the NYSDOH will either modify an existing matrix or develop a new matrix.

To use the matrices appropriately as a tool in the decision-making process, the following should be considered:

- a. The matrices are generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- b. Indoor air concentrations detected in samples collected from the building's basement or, if the building has a slab-on-grade foundation, from the building's lowest occupied living space should be used.
- c. Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- d. When current exposures are attributed to sources other than vapor intrusion, the agencies should be provided documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix and to support assessment and follow-up by the agencies.

3.4.3 Description of recommended actions

Actions recommended in the matrix are based on the relationship between sub-slab vapor concentrations and corresponding indoor air concentrations. They are intended to address both potential and current human exposures and include the following:

a. *No further action*

When the volatile chemical is not detected in the indoor air sample and the concentration detected in the corresponding sub-slab vapor sample is not expected to substantially affect indoor air quality.

b. *Take reasonable and practical actions to identify source(s) and reduce exposures*

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile chemical-containing products in places where people do not spend much time, such as a garage or shed). Resampling may also be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

d. *Monitor*

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is appropriate to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be appropriate to determine whether existing building conditions (e.g., positive pressure HVAC systems) are maintaining the desired mitigation endpoint and to determine whether changes are appropriate.

The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions.

e. *Mitigate*

Mitigation is appropriate to minimize current or potential exposures associated with soil vapor intrusion. Methods to mitigate exposures related to soil vapor intrusion are described in Section 4.

f. *Monitor / Mitigate*

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

Soil Vapor/Indoor Air Matrix 1

October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 0.25	0.25 to < 1	1 to < 5.0	5.0 and above
< 5	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
5 to < 50	5. No further action	6. MONITOR	7. MONITOR	8. MITIGATE
50 to < 250	9. MONITOR	10. MONITOR / MITIGATE	11. MITIGATE	12. MITIGATE
250 and above	13. MITIGATE	14. MITIGATE	15. MITIGATE	16. MITIGATE

No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX 1

This matrix summarizes the minimum actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.25 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples, a minimum reporting limit of 5 micrograms per cubic meter is recommended for buildings with full slab foundations, and 1 microgram per cubic meter for buildings with less than a full slab foundation.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion to occur is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions may be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including the identified source of the volatile chemicals, the environmental remediation program, and site-specific and building-specific conditions. For example, to the extent that all site data and site conditions demonstrate that soil vapor intrusion is not occurring and that the potential for soil vapor intrusion to occur is not likely, the soil vapor intrusion investigation would be considered complete. In general, if indoor exposures represent a concern due to indoor sources, then the State will provide guidance to the property owner and/or tenant on ways to reduce their exposure. If indoor exposures represent a concern due to outdoor sources, then the NYSDEC will decide who is responsible for further investigation and any necessary remediation. Depending upon the outdoor source, this responsibility may or may not fall upon the party conducting the soil vapor intrusion investigation.

Soil Vapor/Indoor Air Matrix 2

October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 3	3 to < 30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR / MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX 2

This matrix summarizes the minimum actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 3 micrograms per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples, a minimum reporting limit of 5 micrograms per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion to occur is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions may be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including the identified source of the volatile chemicals, the environmental remediation program, and site-specific and building-specific conditions. For example, to the extent that all site data and site conditions demonstrate that soil vapor intrusion is not occurring and that the potential for soil vapor intrusion to occur is not likely, the soil vapor intrusion investigation would be considered complete. In general, if indoor exposures represent a concern due to indoor sources, then the State will provide guidance to the property owner and/or tenant on ways to reduce their exposure. If indoor exposures represent a concern due to outdoor sources, then the NYSDEC will decide who is responsible for further investigation and any necessary remediation. Depending upon the outdoor source, this responsibility may or may not fall upon the party conducting the soil vapor intrusion investigation.

APPENDIX D

NYSDEC TOGS Standards and Guidance Values - GA

MEMORANDUM

*** NOTICE ***

This document has been developed to provide Department staff with guidance on how to ensure compliance with statutory and regulatory requirements, including case law interpretations, and to provide consistent treatment of similar situations. This document may also be used by the public to gain technical guidance and insight regarding how the department staff may analyze an issue and factors in their consideration of particular facts and circumstances. This guidance document is not a fixed rule under the State Administrative Procedure Act section 102(2)(a)(i). Furthermore, nothing set forth herein prevents staff from varying from this guidance as the specific facts and circumstances may dictate, provided staff's actions comply with applicable statutory and regulatory requirements. This document does not create any enforceable rights for the benefit of any party.

Previous Date: October 22, 1993

Reissued Date: JUNE 1998

TO: Bureau Directors, Regional Water Engineers, Section Chiefs

SUBJECT: Division of Water Technical and Operational Guidance Series (1.1.1)

AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
AND GROUNDWATER EFFLUENT LIMITATIONS

(Originator - John Zambrano/Scott Stoner)

PURPOSE

The primary purpose of this document is to provide a compilation of ambient water quality guidance values and groundwater effluent limitations for use where there are no standards (in 6 NYCRR 703.5) or regulatory effluent limitations (in 703.6). For the convenience of the reader, the standards in 703.5 and groundwater effluent limitations in 703.6 are included in this document. The values in this document (guidance and regulatory) are used in Department programs, including the SPDES permit program.

DISCUSSION

This document combines and revises the previous editions of TOGS 1.1.1 (ambient values) and 1.1.2 (groundwater effluent limitations). The main reason for the revision is to include revised and added ambient standards and effluent limitations resulting from the amendments to 6 NYCRR Parts 700 - 706, effective March 12, 1998. Ambient guidance values are also added for over 100 substances, largely based on the application of the Principal Organic Contaminant (POC) value to surface waters classified as sources of water supply.

GUIDANCE

This TOGS presents Division of Water ambient water quality standards and guidance values and groundwater effluent limitations. The authority for these values is derived from Article 17 of the Environmental Conservation Law and 6 NYCRR Parts 700-706, Water Quality Regulations.

This TOGS is divided into two Parts. Part I describes and lists ambient standards and guidance values. Part II describes and lists groundwater effluent limitations.

Although the reader may be tempted to turn immediately to the tables containing the ambient or effluent values, the following cautionary note is important: Many substances for which there are standards, guidance values and effluent limitations are not individually listed or identified in the tables, but are included as part of "group" entries such as "Principal Organic Contaminant." A careful reading of the text of Parts I and II is needed to ensure proper use of this document.

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PART I AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values for toxic and non-conventional pollutants are presented in Table 1. This Table includes all of the Division's numerical standards and guidance values established as of the date of this document except standards for coliforms and dissolved oxygen. The reader is referred to Part 703 for the excepted numerical standards and for the Department's narrative water quality standards.

Section A of this Part provides an explanation of ambient water quality standards and guidance values in the format of the column headings in Table 1. Section B, relying on the background of Section A, provides a procedure to help determine whether or not there is a standard or guidance value for a particular substance. Included in this section are instructions on determining the applicability of the POC general groundwater standard to specific substances. Section C provides guidance on certain aspects of development, interpretation and use of standards and guidance values.

A. EXPLANATION OF AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values are presented in Table 1. Table 1 includes columns for "Substance (CAS No.)," "Water Classes," "Standard," "Guidance Value," "Type" and "Basis Code." This section describes these terms. Standards and guidance values are described first to facilitate understanding.

1. Standard and Guidance Value

Standards and guidance values are ambient water quality values that are set to protect the state's waters. They both are derived according to scientific procedures that are in regulation (6 NYCRR Part 702).

A standard is a value that has been promulgated and placed into regulation. The standards for the surface water and groundwater classes are extracted from Part 703 of Title 6. Surface water and groundwater standards were last revised effective March 12, 1998.

A guidance value may be used where a standard for a substance or group of substances has not been established for a particular water class and type of value (section 702.15). All guidance values as of the date of this document are listed in Table 1 of this TOGS.

Standards and guidance values are the maximum allowable concentration in units of ug/L, unless otherwise indicated. Where standards or guidance values are expressed as a function of hardness, hardness is in units of parts per million (ppm), expressed as calcium carbonate, and the resulting value is in ug/L. Also, in such hardness functions, the term "exp" represents the base e exponential function.

"ND" means a non-detectable concentration by the approved analytical methods referenced in section 700.3.

The "general organic guidance value," described in 702.15, is misunderstood by some. This value does not automatically apply in the absence of a standard or specific guidance value. For this value to be applied to an individual substance, the Department must determine that certain toxicological data requirements have been met. As of the date of this TOGS, the only substances for which the Division has made this determination are listed in Table 1.

2. Substance (CAS No.)

The substance or group of substances (entry) for which a standard or guidance value has been derived is presented in this column in alphabetical order. The Chemical Abstract Service Registry (CAS) Number(s) are given, where applicable, to provide positive identification. Because a substance may be known by names other than the one used in this document, identification of the CAS number can be useful for locating the substance. An index of CAS numbers is provided at the end of the document.

Group entries fit into one of three categories, as described below. For each such entry, a Remark will indicate whether the standard(s) or guidance value(s) apply to the sum of the substances or to each substance individually.

Interpretation of Group Entries

- a. Where the entry consists of two or more specific substances, with or without CAS Numbers (e.g.: Aldrin and Dieldrin), the entry includes only the specific substances listed.
- b. Where the entry is the name of a group of substances, with CAS numbers listed (e.g.: Dichlorotoluenes), the entry includes only those substances for which the CAS Numbers are listed.
- c. Where the entry is the name of a group of substances, without CAS Numbers (e.g.: Principal organic contaminant), the entry includes all substances that belong to the group, unless otherwise noted. The specific substances in the group may not be listed in the entry or the index. A determination of the specific substances encompassed by the standard(s) or guidance value(s), therefore, may be necessary.

The principal organic contaminant (POC) standard for groundwater is the largest and most complex of this third type of group entry. It is a general standard that applies individually to a virtually unlimited number of substances in six chemical classes. Because of the importance of this general groundwater standard, instructions for determining its applicability to specific substances are included in Section C, below.

3. Water Classes and Type

Standards and guidance values are developed for specific classes of fresh and saline surface waters and fresh groundwaters for protection of the best uses assigned to each class. Best uses are described in Part 701. Standards and guidance values are further designated as to "Type." Values for protection of sources of drinking water are designated Health (Water Source) and noted by H(WS). Similarly, values for protection of human consumers of fish are designated as Health (Fish Consumption) and noted by H(FC). Values for protection of aquatic life from chronic effects are designated Aquatic (Chronic) and noted as A(C). Values for protection of aquatic life from acute effects are designated Aquatic (Acute) and noted as A(A). Values for protection of wildlife are designated as Wildlife and noted as W. Values for protection from aesthetic considerations are designated as Aesthetic and noted as E. Designation of the Type of value determines the applicability of section 702.15, which concerns derivation of guidance values.

A summary description of best usage protections, water classes and type of values related to toxic pollutants is presented below. The groupings of Water Classes and Type presented for the summary description are those that frequently appear in Table 1. A complete description of the water classifications is provided in Part 701.

<u>Water Classes</u>	<u>Type</u>	<u>Protection For</u>
A, A-S, AA, AA-S	H(WS)	Source of Drinking Water (surface water)
GA	H(WS)	Source of Drinking Water (groundwater)
A, A-S, AA, AA-S, B, C, D	H(FC)	Human Consumption of Fish (fresh waters)
SA, SB, SC, I, SD	H(FC)	Human Consumption of Fish (saline waters)
A, A-S, AA, AA-S, B, C	A(C)	Fish Propagation (fresh waters)
A, A-S, AA, AA-S, B, C, D	A(A)	Fish Survival (fresh waters)
SA, SB, SC, I	A(C)	Fish Propagation (saline waters)
SA, SB, SC, I, SD	A(A)	Fish Survival (saline waters)
A, A-S, AA, AA-S, B, C, D	W	Wildlife Protection (fresh waters)
SA, SB, SC, I, SD	W	Wildlife Protection (saline waters)
A, A-S, AA, AA-S, B, C, D, GA	E	Aesthetic (fresh waters)
SA, SB, SC, I, SD	E	Aesthetic (saline waters)

For many substances, more than one Type of value will be listed for a specific water class. In these situations, all values apply and may be used to derive the most stringent limitations.

4. Basis Code

The letters in this column designate the specific procedure used to derive the standard or guidance value. The key to the letter designations is provided in Table 2.

B. HOW TO LOCATE AMBIENT STANDARD OR GUIDANCE VALUE

This section contains instructions on how to determine whether the Division has an ambient standard or guidance value for a substance. As described above, many substances with standards or guidance values are included in “group” entries but not individually identified, or are listed by a different name. Therefore, the absence of a specific entry for a substance name does not necessarily mean that there is no standard or guidance value. The procedures below should assist the user, but are not guaranteed. The user may want to contact the Division’s Standards and Special Studies Section before assuming that there is no standard or guidance value for a particular substance.

1. Recommended Procedure for Determining if Standard or Guidance Value Exists

- Step 1. Look up substance by name(s) in Table 1. If found, confirm identity by CAS number, if listed. If substance is not found, go to Step 2.
- Step 2. Using CAS number and the CAS number index, determine the entry name and location of the substance. If CAS number is not in index, go to Step 3.
- Step 3. Entries for metals and some other substances, e.g., nitrate, do not contain CAS numbers. The entry for a metal includes all forms of the metal, metallic and in compounds, unless otherwise specified. The nitrate entry includes all compounds containing nitrate. There is no entry for “sodium nitrate” for instance, but there are entries for sodium and for nitrate. Therefore, look in Table 1 for the components of a metallic or ionic compound. If not found, go to Step 4.
- Step 4. Determine whether the substance is included in any of the groups listed below that has a standard or guidance value listed for the water class(es) of interest. Detailed instructions for determining the applicability of the principal organic contaminant (POC) groundwater standard are provided below.

Alkyl diphenyl oxide sulfonates
Aminomethylene phosphonic acid salts
Aryltriazoles
Boric acid, Borates and Metaborates
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans
Foaming agents

Gross alpha radiation
Gross beta radiation
Isothiazolones, total
Linear alkyl benzene sulfonates (LAS)
Methylbenz(a)anthracenes
Phenolic compounds (total phenols)
Phenols, total chlorinated
Phenols, total unchlorinated
Polybrominated biphenyls
Polychlorinated biphenyls
Principal organic contaminant
Quaternary ammonium compounds
Sulfides, total

2. Determination of Applicability of POC Groundwater Standard to Individual Substances

The POC standard for groundwater (Table 1) is a general standard that applies individually to an unlimited number of substances in six chemical classes. Some, but by no means all of the individual POCs are listed in Table 1. Consequently, the applicability of this standard to specific substances must be determined.

The POC standard was originally developed by the New York State Department of Health (DOH) for drinking water. The definitions of the six POC classes (6 NYCRR section 700.1 and Table 4 of this TOGS), obtained from the DOH regulations, are definitive for the first two classes, but require interpretation for the others. Furthermore, some substances that meet the definition of a particular POC class may not be regulated by the POC standard because they have a more stringent specific standard. It is, therefore, important to follow sequentially the steps below for determining the applicability of the POC groundwater standard.

It should be noted that the POC applies as a general standard only to groundwater.

The recommended procedure consists of five steps. These steps must be followed in sequential order to avoid making an incorrect determination. They include reference to three tables within this TOGS, the use of definitions for two POC classes, and how to obtain assistance.

Step 1. Check Table 1 of this TOGS. If the substance is listed in Table 1 as having either a specific groundwater standard (POC or other) or groundwater guidance value, that listed value applies and the reader should not go further. If not, go on to Step 2.

Step 2. Check Table 3 of this TOGS, which is a partial list of substances to which the POC groundwater standard does not apply. If the substance is listed in Table 3, the standard does not apply and the reader should not go further. If the substance is not in Table 3, go

on to Step 3.

- Step 3. Compare the substance with the definitions of POC classes 1 and 2, below. If it meets either of these definitions, the POC groundwater standard applies and the reader should not go further. If it does not meet either definition, or if the reader is uncertain whether it does, go on to Step 4.

Definitions of POC Classes 1 and 2:

Class 1 - Halogenated alkane*: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromide (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero.

Class 2 - Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.

- Step 4. Although the definitions of the remaining classes are in regulation and reproduced in Table 4, determinations beyond this point involve interpretations, including chemical comparisons with previously determined substances. The user, therefore, should contact the Standards and Special Studies Section (Scott Stoner (518-485-5824) or John Zambrano (518-457-6997)) for assistance. They will make the determination, consulting with the DOH as needed. Provision of the CAS number and structure of the substance will facilitate the determination.

*Note: This definition does not mention the specific exclusions listed in the definition in regulation (6 NYCRR 700.1 and Table 4) because those excluded substances are listed in Table 1 of this TOGS and thus covered by Step 1 of this procedure

C. DEVELOPMENT, INTERPRETATION AND USE OF AMBIENT STANDARDS AND GUIDANCE VALUES

1. Development of Standards and Guidance Values

Guidance values are developed as needed with priorities primarily reflecting greater expected or observed occurrence in the environment and greater toxicity. Most requests for development of guidance values originate through the use and

discharge information that is generated through the State Pollutant Discharge Elimination System (SPDES) permit program. Standards are proposed for rule making with similar priority considerations.

As stated previously, a guidance value may be utilized where a standard has not been adopted for a substance. Guidance values that have been developed for surface waters and groundwaters are presented in Table 1. If a substance is judged to pose a threat to the environment and if no standard or guidance value is presented in Table 1 for that substance and water class, a request for development of a guidance value should be made to the Standards and Special Studies Section.

2. Analytical Methods

Section 700.3 provides the analytical requirements to determine compliance with water quality standards and guidance values. These regulations include specific analytical references and also refer to "...other methods approved by the department..." The Division of Water maintains a compilation of methods approved by the department in a separate Technical and Operational Guidance Series (TOGS) document.

There are a number of water quality standards and guidance values for which there is no approved analytical procedure. Use of these values should be accompanied by the identification of an acceptable analytical method.

3. SPDES Effluent Limits

Ambient water quality standards and guidance values are used to derive water quality-based effluent limitations for SPDES permits. Instruction for the derivation of these limitations is provided in separate TOGS documents. There are, however, a number of topics that warrant discussion here.

a. Hydrologic Flow Base and Averaging Period

The derivation of water quality based effluent limitations from ambient water quality standards or guidance values requires selection of a receiving water flow and the specification of an averaging period for the effluent limitation. Their selection will be a function of the variability of the receiving water flow and effluent load and the time period associated with the critical adverse effect. In general, standards and guidance values that are based on adverse effects that develop over time periods greater than a month will receive effluent limitations based on the minimum average 30 consecutive day receiving water flow with a one-in-ten year occurrence (MA30CD/10) and calculated as a monthly average. Values based on shorter-term adverse effects will generally receive effluent limitations based on MA7CD/10 flow and calculated as a daily maximum. Specific determinations, however, are made at the time of permit issuance.

b. Chemical Forms

Standards and guidance values apply to all forms of the substances unless otherwise specified.

Certain ambient standards and guidance values apply to a specific toxic form rather than all forms of the substance. Changes in the form of a substance can occur in the receiving water. As a result, the form of the substance that is specified as an effluent limitation may differ from the form of the ambient standard or guidance value.

c. Groundwater Effluent Limitations

Groundwater effluent limitations are discussed in Part II of this document.

d. Total of Organic Chemicals

Subparagraph 702.16(b)(3) of the water quality regulations specifies, for the purpose of deriving effluent limitations for surface water, an ambient value of 100 ug/L for the total of organic substances having a standard or guidance value established pursuant to the human-health methodologies. The substances included in this total are all of the organic substances listed in Table 1 of this TOGS that have a H(Ws) standard or guidance value less than 100 ug/L for surface water.

Table 1

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Acenaphthene (83-32-9)	A, A-S, AA, AA-S, B, C		5.3	A(C)	
	A, A-S, AA, AA-S, B, C, D		48	A(A)	
	SA, SB, SC, I		6.6	A(C)	
	SA, SB, SC, I, SD		60	A(A)	
	A, A-S, AA, AA-S	20		E	U
	GA		20	E	U
Acetone (67-64-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrolein (107-02-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylamide (79-06-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylic acid (79-10-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrylonitrile (107-13-1)	A, A-S, AA, AA-S		0.07	H(WS)	A
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Alachlor (15972-60-8)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Aldicarb (116-06-3)	A, A-S, AA, AA-S	7		H(WS)	B
	GA	*		H(WS)	
Remark:	* Refer to entry for "Aldicarb and Methomyl."				
Aldicarb and Methomyl (116-06-3;16752-77-5)	GA	0.35*		H(WS)	F
Remark:	* Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aldicarb sulfone (1646-88-4)	A, A-S, AA, AA-S GA		2* 2*	H(W) H(W)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldicarb sulfoxide (1646-87-3)	A, A-S, AA, AA-S GA		4* 4*	H(W) H(W)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldrin (309-00-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	ND * *	0.002 *	H(W) H(W) H(FC) H(FC) H(FC)	A F
Remark:	* Refer to entry for "Aldrin and Dieldrin."				
Aldrin and Dieldrin (309-00-2; 60-57-1)	A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	0.001* 0.001*	0.001*	H(FC) H(FC) H(FC)	
Remark:	* Applies to the sum of these substances.				
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	*	50 50	H(W) H(W) A(C)	Z Z
Remark:	* Refer to entry for "Quaternary ammonium compounds."				
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(W) H(W)	Z Z
Remark:	* Applies to each alkyl diphenyl oxide sulfonate individually.				
Allyl chloride (107-05-1)	A, A-S, AA, AA-S GA	**	5*	H(W) H(W)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aluminum, ionic (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	100*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Ametryn (834-12-8)	A, A-S, AA, AA-S GA	50	50	H(W) H(W)	Z J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4-Aminobiphenyl (92-67-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	* * ** **		E E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(WS) H(WS)	Z Z
Remark:	* Applies to each aminomethylene phosphonic acid salt individually.				
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	A, A-S, AA, AA-S GA		1* 1*	H(WS) H(WS)	B B
Remark:	* Values listed apply to sum of these substances.				
3-Aminotoluene (108-44-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Aminotoluene (106-49-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable)	A, A-S, AA, AA-S	2,000*		H(W.S)	H
	GA	2,000*		H(W.S)	H
	A, A-S, AA, AA-S, B, C	**		A(C)	
	D	**		A(A)	

Remarks: * $\text{NH}_3 + \text{NH}_4^+$ as N.** Un-ionized ammonia as NH_3 ; tables below provide the standard in ug/L at varying pH and temperature for different classes and specifications. Linear interpolation between the listed pH values and temperatures is applicable.

Classes A,A-S, AA, AA-S, B, C with the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	70

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	70

Class D

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	9.1	13	18	26	36	51
6.75	15	21	30	42	59	84
7.00	23	33	46	66	93	131
7.25	34	48	68	95	140	190
7.50	45	64	91	130	180	260
7.75	56	80	110	160	220	320
8.0-9.0	65	92	130	180	260	370

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

Total Ammonia (mg/L NH₃)

Classes A, A-S, AA, AA-S, B, C with the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	2.5	2.4	2.2	2.2	1.5	1.0	.73
6.75	2.5	2.4	2.2	2.2	1.5	1.0	.73
7.00	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.25	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.50	2.5	2.4	2.2	2.2	1.5	1.1	.74
7.75	2.3	2.2	2.1	2.0	1.4	.99	.71
8.00	1.5	1.4	1.4	1.3	.93	.66	.47
8.25	.87	.82	.78	.76	.54	.39	.28
8.50	.49	.47	.45	.44	.32	.23	.17
8.75	.28	.27	.26	.27	.19	.15	.11
9.00	.16	.16	.16	.16	.13	.10	.08

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	2.5	2.4	2.2	2.2	2.1	1.5	1.0
6.75	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.00	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.25	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.50	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.75	2.3	2.2	2.1	2.0	1.9	1.4	1.0
8.00	1.5	1.4	1.3	1.3	1.3	.93	.67
8.25	.87	.82	.78	.76	.76	.54	.40
8.50	.49	.47	.45	.44	.45	.33	.25
8.75	.28	.27	.26	.27	.27	.21	.16
9.00	.16	.16	.16	.16	.17	.14	.11

Class D

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	35	33	31	30	29	29	20
6.75	32	30	28	27	27	26	19
7.00	28	26	25	24	23	23	16
7.25	23	22	20	20	19	19	14
7.50	17	16	16	15	15	15	10
7.75	12	11	11	11	10	10	7.3
8.00	8.0	7.5	7.1	6.9	6.8	6.8	4.9
8.25	4.5	4.2	4.1	4.0	3.9	4.0	2.9
8.50	2.6	2.4	2.3	2.3	2.3	2.4	1.8
8.75	1.4	1.4	1.3	1.4	1.4	1.5	1.1
9.00	.86	.83	.83	.86	.91	1.0	.82

This table provides total ammonia concentrations that will contain the un-ionized ammonia concentration at the level of the standard at the respective pH and temperatures based on relationships established in USEPA 1985, Ambient Water Quality Criteria for Ammonia - 1984. Office of Water, Criteria & Standards Division, Washington, D.C. 20460. EPA 440/5-85-001. January 1985. (Cited, Thurston, R.V., R.C. Russo, and K. Emerson. 1979. Aqueous ammonia equilibrium - tabulation of percent un-ionized ammonia. EPA Ecol. Res. Ser. EPA-600/3-79-091. Environmental Research Laboratory, U.S. Environmental Protection Agency, Duluth, MN: 427 p.)

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aniline (62-53-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Anthracene (120-12-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		3.8	A(C)	
	A, A-S, AA, AA-S, B, C, D		35	A(A)	
Antimony (CAS No. Not Applicable)	A, A-S, AA, AA-S	3		H(WS)	B
	GA	3		H(WS)	B
Arsenic (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	25		H(WS)	F
	A, A-S, AA, AA-S, B, C	150*		A(C)	
	A, A-S, AA, AA-S, B, C, D	340*		A(A)	
	SA, SB, SC	63*		A(C)	
	I		36*	A(C)	
	SD	120*		A(A)	
Remark: * Dissolved arsenic form.					
Aryltriazoles (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA		50*	H(WS)	Z
Remark: * Applies to each aryltriazole individually.					
Asbestos (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
	GA	*		H(WS)	G
Remark: * 7,000,000 fibers (longer than 10 um)/L.					
Atrazine (1912-24-9)	A, A-S, AA, AA-S		3*	H(WS)	G
	GA	7.5		H(WS)	F
Azinphosmethyl (86-50-0)	A, A-S, AA, AA-S		0.07	H(WS)	A
	GA	4.4		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.005*		A(C)	
	SA, SB, SC	0.01		A(C)	
	I		0.01	A(C)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).					
Azobenzene (103-33-3)	A, A-S, AA, AA-S		0.5	H(WS)	A
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Barium (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,000		H(WS)	G
	GA	1,000		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Benefin (1861-40-1)	GA	35		H(WS)	F
Benz(a)anthracene (56-55-3)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
	A, A-S, AA, AA-S, B, C		0.03	A(C)	
	A, A-S, AA, AA-S, B, C, D		0.23	A(A)	
Benzene (71-43-2)	A, A-S, AA, AA-S	1		H(WS)	A
	GA	1		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	10		H(FC)	A
	SA, SB, SC, I, SD	10		H(FC)	A
	A, A-S, AA, AA-S, B, C		210	A(C)	
	A, A-S, AA, AA-S, B, C, D		760	A(A)	
	SA, SB, SC, I		190	A(C)	
	SA, SB, SC, I, SD		670	A(A)	
Benzidine (92-87-5)	A, A-S, AA, AA-S		0.02	H(WS)	A
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.1**		A(C)	
	D	0.1**		A(A)	
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Benzisothiazole (271-61-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Benzo(b)fluoranthene (205-99-2)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(k)fluoranthene (207-08-9)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(a)pyrene (50-32-8)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D		0.0012	H(FC)	
	SA, SB, SC, I, SD		6 x 10 ⁻⁴	H(FC)	
Beryllium (CAS No. Not Applicable)	A, A-S, AA, AA-S		3	H(WS)	B
	GA		3	H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remarks:	* 11 ug/L, when hardness is less than or equal to 75 ppm; 1,100 ug/L when hardness is greater than 75 ppm. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1'-Biphenyl (92-52-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethoxy)methane (111-91-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethyl)ether (111-44-4)	A, A-S, AA, AA-S GA	1.0	0.03	H(WS) H(WS)	A F
Bis(chloromethyl)ether (542-88-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloro-1-methylethyl)ether (108-60-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-ethylhexyl)phthalate (117-81-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	5 5 0.6		H(WS) H(WS) A(C)	A A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		125* 125*	H(WS) H(WS)	B B
Remarks:	* Applies as boron equivalents. Values listed apply to the sum of these substances.				
Boron (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	1,000 10,000* 1,000		H(WS) A(C) A(C) A(C)	H
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Bromacil (314-40-9)	GA	4.4		H(WS)	F
Bromide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		2,000 2,000	H(WS) H(WS)	B B
Bromobenzene (108-86-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromochloromethane (74-97-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromodichloromethane (75-27-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromoform (75-25-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromomethane (74-83-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butachlor (23184-66-9)	GA	3.5		H(WS)	F
cis-2-Butenal (15798-64-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenal (123-73-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

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SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
cis-2-Butenenitrile (1190-76-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenenitrile (627-26-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butoxyethoxyethanol (112-34-5)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butoxypropanol (5131-66-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butylate (2008-41-5)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Butylbenzene (104-51-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
sec-Butylbenzene (135-98-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
tert-Butylbenzene (98-06-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butyl benzyl phthalate (85-68-7)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butyl isopropyl phthalate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Cadmium (CAS No. Not Applicable)	A, A-S, AA, AA-S	5		H(WS)	B,G
	GA	5		H(WS)	B,G
	SA, SB, SC, I, SD		2.7	H(FC)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	7.7		A(C)	
	SD	21		A(A)	
Remarks:	* (0.85) exp(0.7852 [ln (ppm hardness)] - 2.715) ** (0.85) exp(1.128 [ln (ppm hardness)] - 3.6867) Aquatic Type standards apply to dissolved form.				
Captan (133-06-2)	GA	18		H(WS)	F
Carbaryl (63-25-2)	GA	29		H(WS)	F
Carbofuran (1563-66-2)	A, A-S, AA, AA-S	15		H(WS)	B
	GA		15	H(WS)	B
	A, A-S, AA, AA-S, B, C	1.0*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Carbon tetrachloride (56-23-5)	A, A-S, AA, AA-S		0.4	H(WS)	A
	GA	5		H(WS)	F
Carboxin (5234-68-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Chloramben (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
Chloranil (118-75-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlordane (57-74-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	2×10^{-5}		H(FC)	A
	SA, SB, SC, I, SD	2×10^{-5}		H(FC)	A
Chloride (CAS No. Not Applicable)	A, A-S, AA, AA-S	250,000		H(WS)	H
	GA	250,000		H(WS)	H

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	A, A-S, AA, AA-S	$7 \times 10^{-7*}$		H(WS)	A
	GA	$7 \times 10^{-7*}$		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	$6 \times 10^{-10*}$		H(FC)	A
	SA, SB, SC, I, SD	$6 \times 10^{-10*}$		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	$3.1 \times 10^{-9**}$		W	
	SA, SB, SC, I, SD	$3.1 \times 10^{-9**}$		W	
Remarks:	<p>* Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans that are listed in the table below as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD).</p> <p>The 2,3,7,8-TCDD equivalent for a congener for the H(WS) standards is obtained by multiplying the concentration of that congener by its Toxicity Equivalency Factor (TEF) from the table below. The 2,3,7,8-TCDD equivalent for a congener for the H(FC) standards is obtained by multiplying the concentration of that congener by its TEF and its Bioaccumulation Equivalency Factor (BEF) from the table below.</p> <p>** Applies only to 2,3,7,8-TCDD</p>				
<u>CONGENER</u>		<u>TEF</u>		<u>BEF</u>	
2,3,7,8-Tetrachlorodibenzo-p-dioxin		1		1	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		0.5		0.9	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		0.1		0.3	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		0.1		0.1	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		0.1		0.1	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		0.01		0.05	
Octachlorodibenzo-p-dioxin		0.001		0.01	
2,3,7,8-Tetrachlorodibenzofuran		0.1		0.8	
1,2,3,7,8-Pentachlorodibenzofuran		0.05		0.2	
2,3,4,7,8-Pentachlorodibenzofuran		0.5		1.6	
1,2,3,4,7,8-Hexachlorodibenzofuran		0.1		0.08	
1,2,3,6,7,8-Hexachlorodibenzofuran		0.1		0.2	
2,3,4,6,7,8-Hexachlorodibenzofuran		0.1		0.7	
1,2,3,7,8,9-Hexachlorodibenzofuran		0.1		0.6	
1,2,3,4,6,7,8-Heptachlorodibenzofuran		0.01		0.01	
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.01		0.4	
Octachlorodibenzofuran		0.001		0.02	
Chlorine, Total Residual (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	5		A(C)	
	D	19		A(A)	
	SA, SB, SC, I	7.5		A(C)	
	SD	13		A(A)	
2-Chloroaniline (95-51-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	<p>* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.</p> <p>** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.</p>				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3-Chloroaniline (108-42-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloroaniline (106-47-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorobenzene (108-90-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C, D	400		H(FC)	B
	SA,SB, SC, I, SD	400		H(FC)	B
	A, A-S, AA, AA-S, B, C	5		A(C)	
	SA, SB, SC, I		5	A(C)	
	A, A-S, AA, AA-S	20		E	U
	D	50		E	V
	SD		50	E	V
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorobenzotrifluoride (98-56-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1-Chlorobutane (109-69-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroethane (75-00-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroform (67-66-3)	A, A-S, AA, AA-S GA	7 7		H(WS) H(WS)	A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chloromethyl methyl ether (107-30-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Chloronaphthalene (91-58-7)	A, A-S, AA, AA-S GA	10	10	E E	U U
2-Chloronitrobenzene (88-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloronitrobenzene (121-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloronitrobenzene (100-00-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroprene (126-99-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorothalonil (1897-45-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Chlorotoluene (95-49-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chlorotoluene (108-41-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorotoluene (106-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloro-o-toluidine (95-69-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
5-Chloro-o-toluidine (95-79-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloro-1,1,1-trifluoropropane (460-35-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chromium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	50 50 * **		H(WS) H(WS) A(C) A(A)	G G
Remarks:	* (0.86) exp(0.819 [ln (ppm hardness)] + 0.6848)				
	** (0.316) exp(0.819 [ln (ppm hardness)] + 3.7256)				
	Aquatic Type standards apply to dissolved form and do not include hexavalent chromium.				
Chromium (hexavalent) (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	50 11* 16* 54** 1,200**		H(WS) A(C) A(A) A(C) A(C) A(A)	F
Remarks:	* Applies to dissolved form.				
	** Applies to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chrysene (218-01-9)	A, A-S, AA, AA-S GA		0.002 0.002	H(WS) H(WS)	A A
Cobalt (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	5*	110	A(C) A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.					
Copper (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	200 200 * ** *** ****		H(WS) H(WS) A(C) A(A) A(C) A(A)	H H
Remarks: * (0.96) exp(0.8545 [ln (ppm hardness)] - 1.702) ** (0.96) exp(0.9422 [ln (ppm hardness)] - 1.7) *** Standard is 3.4 ug/L except in New York/New Jersey Harbor where it is 5.6 ug/L. **** Standard is 4.8 ug/L except in New York/New Jersey Harbor where it is 7.9 ug/L. Aquatic Type standards apply to dissolved form.					
Cyanide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	200 200 9,000 9,000 5.2* 22* 1.0* 1.0*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	H H B B
Remark: * As free cyanide: the sum of HCN and CN ⁻ expressed as CN.					
Cyanogen bromide (506-68-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Cyanogen chloride (506-77-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dalapon (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	50*	50*	H(WS) H(WS)	Z J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
p,p'-DDD (72-54-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.3 0.3 8×10^{-5} 8×10^{-5} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDE (72-55-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 7×10^{-6} 7×10^{-6} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDT (50-29-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 1×10^{-5} 1×10^{-5} $1.1 \times 10^{-5*}$ $1.1 \times 10^{-5*}$		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Applies to the sum of p,p'-DDD, p,p'-DDE and p,p'-DDT				
Dechlorane Plus (13560-89-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Demeton (8065-48-3; 298-03-3; 126-75-0)	A, A-S, AA, AA-S, B, C SA, SB, SC I	0.1* 0.1	0.1	A(C) A(C) A(C)	
Remark:	* Standards and guidance value apply to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Diazinon (333-41-5)	GA A, A-S, AA, AA-S, B, C	0.7 0.08*		H(WS) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dibromobenzene (583-53-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dibromobenzene (108-36-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Dibromobenzene (106-37-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromochloromethane (124-48-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
1,2-Dibromo-3-chloropropane (96-12-8)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
Dibromodichloromethane (594-18-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromomethane (74-95-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dibromo-3-nitrilopropionamide and Dibromoacetoneitrile (10222-01-2; 3252-43-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D		50* 50* 20 50	H(WS) H(WS) A(C) A(A)	Z Z
Remarks:	Values listed apply to the sum of these substances, except as noted below.				
	* Applies to 2,2-dibromo-3-nitrilopropionamide only.				
Di-n-butyl phthalate (84-74-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Dicamba (1918-00-9)	GA	0.44		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dichlorobenzenes (95-50-1;541-73-1;106-46-7)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC, I		5**	A(C)	
	A, A-S, AA, AA-S	20***/30****		E	U
	D	50**		E	V
	SD		50**	E	V
Remarks:	* Applies to each isomer (1,2-, 1,3- and 1,4-dichlorobenzene) individually. ** Applies to the sum of 1,2-, 1,3- and 1,4-dichlorobenzene *** Applies to 1,3-dichlorobenzene only. **** Applies to 1,4-dichlorobenzene only. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
3,3'-Dichlorobenzidine (91-94-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dichlorobenzotrifluoride (328-84-7)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,4-Dichloro-2-butene (1476-11-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,4-Dichloro-2-butene (110-57-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorodifluoromethane (75-71-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remark:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1-Dichloroethane (75-34-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Dichloroethane (107-06-2)	A, A-S, AA, AA-S GA	0.6 0.6		H(WS) H(WS)	A A
1,1-Dichloroethene (75-35-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,2-Dichloroethene (156-59-2)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2-Dichloroethene (156-60-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorofluoromethane (75-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorophenol (120-83-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	**** 0.3* ** ***	5*****	H(WS) H(WS) E E E	I J U
Remarks: *	Also see entry for "Phenolic compounds (total phenols)."				
**	Refer to entry for "Phenolic compounds (total phenols)."				
***	Refer to entry for "Phenols, total chlorinated."				
****	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
*****	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
2,4-Dichlorophenoxyacetic acid (94-75-7)	A, A-S, AA, AA-S GA	50 50		H(WS) H(WS)	G G
1,1-Dichloropropane (78-99-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dichloropropane (78-87-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
1,3-Dichloropropane (142-28-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dichloropropane (594-20-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1-Dichloropropene (563-58-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dichloropropene (542-75-6)	A, A-S, AA, AA-S GA	0.4* 0.4*		H(WS) H(WS)	A A
Remark:	* Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.				
2,3-Dichlorotoluene (32768-54-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorotoluene (95-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dichlorotoluene (19398-61-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dichlorotoluene (118-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dichlorotoluene (95-75-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dichlorotoluene (25186-47-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dieldrin (60-57-1)	A, A-S, AA, AA-S	0.004		H(WS)	A
	GA	0.004		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-7}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-7}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.056		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.24		A(A)	
Di(2-ethylhexyl)adipate (103-23-1)	A, A-S, AA, AA-S	20		H(WS)	A
	GA	20		H(WS)	A
Diethyl phthalate (84-66-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Diisopropylbenzene (577-55-9)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Diisopropylbenzene (99-62-7)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,4-Diisopropylbenzene (100-18-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
N,N-Dimethylaniline (121-69-7)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
2,3-Dimethylaniline (87-59-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylaniline (95-68-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dimethylaniline (95-78-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dimethylaniline (87-62-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dimethylaniline (95-64-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,5-Dimethylaniline (108-69-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,3'-Dimethylbenzidine (119-93-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethylbibenzyl (538-39-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethyldiphenylmethane (4957-14-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dimethylformamide (68-12-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
alpha, alpha-Dimethyl phenethylamine (122-09-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylphenol (105-67-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	 1,000 1,000 * * **	50 50	H(WS) H(WS) H(FC) H(FC) E E E	Z Z B B
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dimethyl phthalate (131-11-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dimethyl tetrachloroterephthalate (1861-32-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
1,3-Dinitrobenzene (99-65-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrophenol (51-28-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	400 400 * * **	10 10	H(WS) H(WS) H(FC) H(FC) E E E	B B B B E
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
2,3-Dinitrotoluene (602-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrotoluene (121-14-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dinitrotoluene (619-15-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dinitrotoluene (606-20-2)	A, A-S, AA, AA-S GA	*	0.07	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dinitrotoluene (610-39-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dinitrotoluene (618-85-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Di-n-octyl phthalate (117-84-0)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dinoseb (88-85-7)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Diphenamid (957-51-7)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Diphenylamine (122-39-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Diphenylhydrazines (122-66-7; 530-50-7)	A, A-S, AA, AA-S GA	ND**	0.05*	H(WS) H(WS)	A F
Remarks:	* Applies to 1,2-diphenylhydrazine (CAS No. 122-66-7) only. ** Applies to the sum of 1,1- and 1,2-diphenylhydrazine (CAS Nos. 530-50-7 and 122-66-7, respectively).				
Diquat (2764-72-9)	A, A-S, AA, AA-S GA	20* 20*		H(WS) H(WS)	B B
Remark:	* Applies to the concentration of diquat ion whether free or as an undissociated salt.				
Disulfoton (298-04-4)	GA	*		H(WS)	
Remark:	* Refer to entry for "Phorate and Disulfoton."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1)	A, A-S, AA, AA-S		50*	H(WS)	B
	GA		50*	H(WS)	B
Remark: * Applies to sum of these substances.					
Dyphylline (479-18-5)	A, A-S, AA, AA-S	50		H(WS)	B
	GA		50	H(WS)	B
Endosulfan (115-29-7)	A, A-S, AA, AA-S, B, C	0.009		A(C)	
	D	0.22*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD	0.034		A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (d).					
Endothall (145-73-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Endrin (72-20-8)	A, A-S, AA, AA-S	0.2		H(WS)	G
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D	0.002		H(FC)	
	SA, SB, SC, SD	0.002		H(FC)	
	I		0.002	H(FC)	
	A, A-S, AA, AA-S, B, C	0.036		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.086		A(A)	
Endrin aldehyde (7421-93-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Endrin ketone (53494-70-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Ethylbenzene (100-41-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C		17	A(C)	
	A, A-S, AA, AA-S, B, C, D		150	A(A)	
	SA, SB, SC, I		4.5	A(C)	
	SA, SB, SC, I, SD		41	A(A)	
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

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SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ethylene chlorohydrin (107-07-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Ethylene dibromide (106-93-4)	A, A-S, AA, AA-S	6×10^{-4}		H(WS)	A
	GA	6×10^{-4}		H(WS)	A
Ethylene glycol (107-21-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		500,000	A(C)	
	D		1,000,000	A(A)	
Ethylene oxide (75-21-8)	A, A-S, AA, AA-S		0.05	H(WS)	A
	GA		0.05	H(WS)	A
Ethylenethiourea (96-45-7)	GA	ND		H(WS)	F
Ferbam (14484-64-1)	GA	4.2		H(WS)	F
Fluometuron (2164-17-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Fluoranthene (206-44-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Fluorene (86-73-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		0.54	A(C)	
	A, A-S, AA, AA-S, B, C, D		4.8	A(A)	
	SA, SB, SC, I		2.5	A(C)	
	SA, SB, SC, I, SD		23	A(A)	
Fluoride (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,500		H(WS)	H
	GA	1,500		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	D	**		A(A)	
Remarks:	* $(0.02) \exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ ** $(0.1) \exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Foaming agents (CAS No. Not Applicable)	GA	500*		E	U
Remark:	* Determined as methylene blue active substances (MBAS) or by other tests as specified by the Commissioner.				
Folpet (133-07-3)	GA	50		H(WS)	J
Glyphosate (1071-83-6)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Gross alpha radiation (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	* *		H(WS) H(WS)	G G
Remark: * 15 picocuries per liter, excluding radon and uranium.					
Gross beta radiation (CAS No. Not Applicable)	A, AA A-S, AA-S GA	* *	*	H(WS) H(WS) H(WS)	H H H
Remark: * 1,000 picocuries per liter, excluding strontium-90 and alpha emitters.					
Guaifenesin (93-14-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Heptachlor (76-44-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 2×10^{-4} 2×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Heptachlor epoxide (1024-57-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.03 0.03 3×10^{-4} 3×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobenzene (118-74-1)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 3×10^{-5} 3×10^{-5}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobutadiene (87-68-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C D SA, SB, SC I SD	0.5 0.5 0.01 0.01 1.0* 10* 0.3 3.0	 0.3	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	B B B B
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
alpha-Hexachlorocyclohexane (319-84-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.01 0.01 0.002 0.002		H(WS) H(WS) H(FC) H(FC)	A A A A
beta-Hexachlorocyclohexane (319-85-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 0.007 0.007		H(WS) H(WS) H(FC) H(FC)	A A A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
delta-Hexachlorocyclohexane (319-86-8)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
epsilon-Hexachlorocyclohexane (6108-10-7)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
gamma-Hexachlorocyclohexane (58-89-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	0.95		A(A)	
Hexachlorocyclopentadiene (77-47-4)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.45**		A(C)	
	D	4.5**		A(A)	
	SA, SB, SC	0.07		A(C)	
	I		0.07	A(C)	
	SD	0.7		A(A)	
	A, A-S, AA, AA-S	1.0		E	U
Remarks: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
Hexachloroethane (67-72-1)	A, A-S, AA, AA-S	5		H(WS)	A, I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C, D	0.6		H(FC)	A
	SA, SB, SC, I, SD	0.6		H(FC)	A
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Hexachlorophene (70-30-4)	A, A-S, AA, AA-S		5****	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S	**		E	
	GA	**		E	
	B,C,D	***		E	
Remarks: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "Phenolic compounds (total phenols)." *** Refer to entry for "Phenols, total chlorinated." **** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Hexachloropropene (1888-71-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
2-Hexanone (591-78-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Hexazinone (51235-04-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Hydrazine (302-01-2)	A, A-S, AA, AA-S, B, C D	* **		A(C) A(A)	
Remarks:	* 5 ug/L at less than 50 ppm hardness and 10 ug/L at greater than or equal to 50 ppm hardness. ** 50 ug/L at less than 50 ppm hardness and 100 ug/L at greater than or equal to 50 ppm hardness. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Hydrogen sulfide (7783-06-4)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	2.0* 2.0	2.0 ** **	A(C) A(C) A(C) E E	
Remarks:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). ** Refer to entry for "Sulfides, total." Aquatic Type standards and guidance value apply to undissociated form.				
Hydroquinone (123-31-9)	A, A-S, AA, AA-S, B, C D A, A-S, AA, AA-S GA B, C, D	2.2** 4.4** * * ***		A(C) A(A) E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** Refer to entry for "Phenols, total unchlorinated."				
1-Hydroxyethylidene- 1,1-diphosphonic acid (2809-21-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S	*		E	
	GA	*		E	
	B, C, D	**		E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)."				
	** Refer to entry for "Phenols, total unchlorinated."				
Indeno (1,2,3-cd) pyrene (193-39-5)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Iron (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	300**		A(C)	
	D	300**		A(A)	
	A, A-S, AA, AA-S	300		E	G
	GA	300*		E	F
Remarks:	* Also see standard for "Iron and Manganese."				
	** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Iron and Manganese (CAS No. Not Applicable)	GA	500*		E	F
Remark:	* Applies to the sum of these substances; also see individual standards for "Iron" and "Manganese."				
Isodecyl diphenyl phosphate (29761-21-5)	A, A-S, AA, AA-S, B, C	1.7*		A(C)	
	D	22*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Isodrin (465-73-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Isophorone (78-59-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Isopropalin (33820-53-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Isopropylbenzene (98-82-8)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA		H(WS)	J	
	A, A-S, AA, AA-S, B, C	2.6	A(C)		
	A, A-S, AA, AA-S, B, C, D	23	A(A)		
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Isopropyltoluene (527-84-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Isopropyltoluene (535-77-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Isopropyltoluene (99-87-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Isothiazolones, total (isothiazolinones) (includes 5-chloro-2-methyl-4-isothiazolin-3-one & 2-methyl-4-isothiazolin-3-one) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	1*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Standards apply to the sum of these substances.				
Kepone (143-50-0)	GA	ND		H(WS)	F
Lead (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	25		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8		A(C)	
	SA, SB, SC, I, SD	204		A(A)	
Remarks:	* {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 4.297) ** {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 1.052) Aquatic Type standards apply to dissolved form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Linear alkyl benzene sulfonates (LAS) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	40*		A(C)	
Remarks:	* LAS with side chains greater than 13 carbons only; applies to the sum of these substances. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Magnesium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	35,000	35,000	H(WS) H(WS)	B B
Malathion (121-75-5)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	7.0 0.1* 0.1	0.1	H(WS) A(C) A(C) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Mancozeb (8018-01-7)	GA	1.8		H(WS)	F
Maneb (12427-38-2)	GA	1.8		H(WS)	F
Manganese (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	300 300*		E E	G F
Remark:	* Also see entry for "Iron and Manganese."				
Mercaptobenzothiazole (149-30-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Mercury (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.7 0.7 7×10^{-4} * 7×10^{-4} * 0.77* 1.4* 0.0026* 0.0026*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) W W	B B B B
Remark:	* Applies to dissolved form.				
Methacrylic acid (79-41-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methacrylonitrile (126-98-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Methomyl (16752-77-5)	GA	*		H(WS)	
Remark: * Refer to entry for "Aldicarb and Methomyl."					
Methoxychlor (72-43-5)	A, A-S, AA, AA-S	35		H(WS)	H
	GA	35		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.03*		A(C)	
	SA, SB, SC	0.03		A(C)	
	I		0.03	A(C)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).					
(1-Methoxyethyl) benzene (4013-34-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
(2-Methoxyethyl) benzene (3558-60-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
N-Methylaniline (100-61-8)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Methylbenz(a)anthracenes (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.002*	H(WS)	A
	GA		0.002*	H(WS)	A
Remark: * Applies to the sum of these substances.					
Methyl chloride (74-87-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	GA	0.44		H(WS)	F
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4,4'-Methylene-bis-(N-methyl)- aniline (1807-55-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methylene bithiocyanate (6317-18-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	1.0*	50 50	H(WS) H(WS) A(C)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Methylene chloride (75-09-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA,SB, SC, I, SD	5 * 200 200		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-(1-Methylethoxy)-1-butanol (31600-69-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Methylethyl-1,3-dioxolane (126-39-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl ethyl ketone (78-93-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl iodide (74-88-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methyl methacrylate (80-62-6)	GA	50		H(WS)	J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Methylnaphthalene (91-57-6)	A, A-S, AA, AA-S, B, C		4.7	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
	SA, SB, SC, I		4.2	A(C)	
	SA, SB, SC, I, SD		38	A(A)	
Methyl parathion (298-00-0)	GA	*		H(WS)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remark: * Refer to entry for "Parathion and Methyl parathion."					
alpha-Methylstyrene (98-83-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
2-Methylstyrene (611-15-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
3-Methylstyrene (100-80-1)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
4-Methylstyrene (622-97-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Metribuzin (21087-64-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Mirex (2385-85-5)	A, A-S, AA, AA-S	0.03		H(WS)	A
	GA	0.03		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.001*		A(C)	
	D	0.001*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD		0.001	A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Nabam (142-59-6)	GA	1.8		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Naphthalene (91-20-3)	A, A-S, AA, AA-S, B, C		13	A(C)	
	A, A-S, AA, AA-S, B, C, D		110	A(A)	
	SA, SB, SC, I		16	A(C)	
	SA, SB, SC, I, SD		140	A(A)	
	A, A-S, AA, AA-S	10		E	U
	GA		10	E	U
Niacinamide (98-92-0)	A, A-S, AA, AA-S	500		H(WS)	B
	GA		500	H(WS)	B
Nickel (CAS No. Not Applicable)	A, A-S, AA, AA-S	100		H(WS)	B
	GA	100		H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8.2		A(C)	
	SA, SB, SC, I, SD	74		A(A)	
Remarks:	* (0.997) exp (0.846 [ln (hardness)] + 0.0584) ** (0.998) exp (0.846 [ln (hardness)] + 2.255) Aquatic Type standards apply to dissolved form.				
Nitralin (4726-14-1)	GA	35		H(WS)	F
Nitrate (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Also see entry for "Nitrate and Nitrite."				
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Applies to the sum of these substances; also see individual standards for "Nitrate" and "Nitrite."				
Nitrilotriacetic acid (CAS No. Not Applicable)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5,000**		A(C)	
Remarks:	* Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less. ** Applies to nitrilotriacetate. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,000*		H(WS)	G
	GA	1,000*		H(WS)	G
	A, A-S, AA, AA-S, B, C	**		A(C)	
Remarks:	* Also see entry for "Nitrate and Nitrite." ** Standard is 100 ug/L for warm water fishery waters and 20 ug/L for cold water fishery waters. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Nitroaniline (88-74-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitroaniline (99-09-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitroaniline (100-01-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Nitrobenzene (98-95-3)	A, A-S, AA, AA-S	0.4		H(WS)	A
	GA	0.4		H(WS)	A
	A, A-S, AA, AA-S	30		E	U
N-Nitrosodiphenylamine (86-30-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Nitrotoluene (88-72-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitrotoluene (99-08-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitrotoluene (99-99-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
5-Nitro-o-toluidine (99-55-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Octachlorostyrene (29082-74-4)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 6×10^{-6} 6×10^{-6}		H(WS) H(WS) H(FC) H(FC)	B B B B
Oxamyl (23135-22-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Paraquat (4685-14-7)	GA	3.0		H(WS)	F
Parathion (56-38-2)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	* * 0.065		H(WS) A(C) A(A)	
Remark:	* Refer to entry for "Parathion and Methyl parathion."				
Parathion and Methyl parathion (56-38-2; 298-00-0)	GA A, A-S, AA, AA-S, B, C	1.5* 0.008**		H(WS) A(C)	F
Remarks:	* Applies to the sum of these substances. ** Applies to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Pendimethalin (40487-42-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachlorobenzene (608-93-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Pentachloroethane (76-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachloronitrobenzene (82-68-8)	GA	ND		H(WS)	F
Pentachlorophenol (87-86-5)	A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S GA B, C, D	* ** *** *** ****		A(C) A(A) E E E	
Remarks:	* exp [1.005 (pH) - 5.134] ** exp [1.005 (pH) - 4.869] *** Refer to entry for "Phenolic compounds (total phenols)." **** Refer to entry for "Phenols, total chlorinated."				
Phenanthrene (85-01-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD		50 50 5.0 45 1.5 14	H(WS) H(WS) A(C) A(A) A(C) A(A)	Z Z
Phenol (108-95-2)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Phenolic compounds (total phenols) (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	1* 1*		E E	U U
Remark:	* Applies to the sum of these substances.				
Phenols, total chlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 1.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				
Phenols, total unchlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 5.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Phenylenediamine (95-54-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Phenylenediamine (108-45-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Phenylenediamine (106-50-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenyl ether (101-84-8)	A, A-S, AA, AA-S GA	10	10	E E	U U
Phenylhydrazine (100-63-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenylpropanolamine (14838-15-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
3-Phenyl-1-propene (637-50-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1-Phenyl-1-propene (766-90-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1-Phenyl-1-propene (873-66-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Phorate (298-02-2)	GA	*		H(WS)	
Remark: * Refer to entry for "Phorate and Disulfoton."					
Phorate and Disulfoton (298-02-2; 298-04-4)	GA	ND*		H(WS)	F
Remark: * Applies to sum of these substances.					
Phosphorus (CAS No. Not Applicable)	A, A-S, AA, AA-S, B		20*	**	**
Remarks: * Applies only where the letter "P" (ponds, lakes and reservoirs) appears in the Water Index Number, excluding Lake Champlain. The department is considering site-specific values for Lake Champlain and for Lake Ontario and Lake Erie, both of which do not have the letter "P" designation.					
** Based on aesthetic effects for primary and secondary contact recreation.					
Picloram (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.					
Polybrominated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each congener individually.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each congener individually.					
Polychlorinated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S	0.09*		H(WS)	A
	GA	0.09*		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6} *		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6} *		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	1.2×10^{-4} *		W	
	SA, SB, SC, I, SD	1.2×10^{-4} *		W	
Remark: * Applies to the sum of these substances.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Principal organic contaminant (CAS No. Not Applicable)	GA	5		H(WS)	J
Remarks: This standard applies to any and every individual substance, whether listed in this Table or not, that is in one of the principal organic contaminant classes as defined in 6 NYCRR 700.1 <u>except</u> any substance that has a H(WS) Type standard for class GA waters (other than 5 ug/L with Basis Code J) listed elsewhere in this Table. For the convenience of the reader, the principal organic contaminant standard of 5 ug/L (Basis Code J), is listed in this Table for some (but not all) substances regulated by this standard. A less stringent guidance value for an individual substance may be substituted for this standard if so determined by the Commissioner of the New York State Department of Health.					
Prometon (1610-18-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Propachlor (1918-16-7)	GA	35		H(WS)	F
Propanil (709-98-8)	GA	7.0		H(WS)	F
Propazine (139-40-2)	GA	16		H(WS)	F
Propham (122-42-9)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Propylbenzene (103-65-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Pyrene (129-00-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		4.6	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
Pyridine (110-86-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Quaternary ammonium compounds (including dimethyl benzyl ammonium chloride & dimethyl ethyl benzyl ammonium chloride) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	10*		A(C)	
Remarks: * Applies to the sum of these substances. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Radium 226 (CAS No. Not Applicable)	A, AA	*		H(WS)	H
	A-S, AA-S		*	H(WS)	H
	GA	*		H(WS)	H
Remark: * 3 picocuries per liter; also see entry for "Radium 226 and Radium 228."					
Radium 226 and Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
	GA	*		H(WS)	G
Remark: * 5 picocuries per liter; Applies to the sum of these substances.					
Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	
	GA	*		H(WS)	
Remark: * Refer to entry for "Radium 226 and Radium 228."					
Selenium (CAS No. Not Applicable)	A, A-S, AA, AA-S	10		H(WS)	G
	GA	10		H(WS)	G
	A, A-S, AA, AA-S, B, C	4.6*		A(C)	
Remark: * Aquatic Type standard applies to dissolved form.					
Silver (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	50		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.1*		A(C)	
	D	**		A(A)	
	SD	2.3		A(A)	
Remarks: * Applies to ionic silver. ** $\exp(1.72 [\ln(\text{ppm hardness})] - 6.52)$ Standards for D and SD Classes apply to acid-soluble form. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Simazine (122-34-9)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Sodium (CAS No. Not Applicable)	GA	20,000		H(WS)	H
Strontium 90 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remarks: * 8 picocuries per liter. If two or more radionuclides are present, the sum of their doses shall not exceed an annual potential dose of 4 millirems per year.					
Styrene (100-42-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
	A, A-S, AA, AA-S	50		E	U
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Sulfate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	250,000 250,000		H(WS) H(WS)	G F
Sulfides, total (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	** **	 ** 50* 50*	A(C) A(C) A(C) E E	 U U
Remarks:	Values listed apply to sum of these substances. * Expressed as hydrogen sulfide. ** Refer to entry for "Hydrogen Sulfide."				
Sulfite (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	200*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Tebuthiuron (34014-18-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Terbacil (5902-51-2)	GA	50		H(WS)	J
Terbufos (13071-79-9)	A, A-S, AA, AA-S GA		0.09 0.09	H(WS) H(WS)	B B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S GA	 * 10**	5*** 10**	H(WS) H(WS) E E	I J U U
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3,4-, 1,2,3,5-, and 1,2,4,5-tetrachlorobenzene) individually. ** Applies to the sum of 1,2,3,4-, 1,2,3,5- and 1,2,4,5-tetrachlorobenzene. *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent specific MCL. Value applies to each isomer individually.				
1,1,1,2-Tetrachloroethane (630-20-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,2,2-Tetrachloroethane (79-34-5)	A, A-S, AA, AA-S GA	*	0.2	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Tetrachloroethene (127-18-4)	A, A-S, AA, AA-S	*	0.7	H(WS)	A
	GA			H(WS)	J
	A, A-S, AA, AA-S, B, C, D		1	H(FC)	
	SA, SB, SC, I, SD		1	H(FC)	
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrachloroterephthalic acid (2136-79-0)	GA	50		H(WS)	J
alpha, alpha, alpha, 4-Tetrachloro- toluene (5216-25-1)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrahydrofuran (109-99-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2,3,4-Tetramethylbenzene (488-23-3)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3,5-Tetramethylbenzene (527-53-7)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4,5-Tetramethylbenzene (95-93-2)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
Thallium (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.5	H(WS)	B
	GA		0.5	H(WS)	B
	A, A-S, AA, AA-S, B, C	8*		A(C)	
	D	20		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Theophylline (58-55-9)	A, A-S, AA, AA-S GA	40	40	H(WS) H(WS)	B B
Thiram (137-26-8)	GA	1.8		H(WS)	F
Toluene (108-88-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 6,000 6,000	100 480 92 430	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(A)	I J B B
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,4-diamine (95-80-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,5-diamine (95-70-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,6-diamine (823-40-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
o-Toluidine (95-53-4)	A, A-S, AA, AA-S GA	*	0.6	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tolyltriazole (29385-43-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Toxaphene (8001-35-2)	A, A-S, AA, AA-S	0.06		H(WS)	A
	GA	0.06		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.005		A(C)	
	D	1.6*		A(A)	
	SA, SB, SC	0.005		A(C)	
	I		0.005	A(C)	
	SD		0.07	A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (d).				
1,2,4-Tribromobenzene (615-54-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tributyltin oxide (56-35-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
2,4,6-Trichloroaniline (634-93-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC	5**		A(C)	
	I		5**	A(C)	
	A, A-S, AA, AA-S	10**		E	U
	GA		10**	E	U
	D	50**		E	V
	SD	50**		E	V
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene) individually.				
	** Applies to the sum of 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene.				
	For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
	*** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each isomer individually.				
1,1,1-Trichloroethane (71-55-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloroethane (79-00-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
Trichloroethene (79-01-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	5 * 40 40		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorofluoromethane (75-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	GA	35		H(WS)	F
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	A, A-S, AA, AA-S GA	10 0.26		H(WS) H(WS)	G F
1,1,2-Trichloropropane (598-77-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3-Trichloropropane (96-18-4)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
cis-1,2,3-Trichloropropene (13116-57-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2,3-Trichloropropene (13116-58-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,4-Trichlorotoluene (94-99-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,6-Trichlorotoluene (2014-83-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
alpha,3,4-Trichlorotoluene (102-47-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,2-Trichlorotoluene (88-66-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,4-Trichlorotoluene (13940-94-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trichlorotoluene (7359-72-0)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,5-Trichlorotoluene (56961-86-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trichlorotoluene (2077-46-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorotoluene (6639-30-1)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trichlorotoluene (23749-65-7)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trifluralin (1582-09-8)	GA	35		H(WS)	F
1,2,3-Trimethylbenzene (526-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4-Trimethylbenzene (95-63-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C		33	A(C)	
	A, A-S, AA, AA-S, B, C, D		290	A(A)	
	SA, SB, SC, I		19	A(C)	
	SA, SB, SC, I, SD		170	A(A)	
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3,5-Trimethylbenzene (108-67-8)	A, A-S, AA- AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trimethylpyridine (1462-84-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2,4,6-Trimethylpyridine (108-75-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
sym-Trinitrobenzene (99-35-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trinitrotoluene (602-29-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2,3,6-Trinitrotoluene (18292-97-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trinitrotoluene (610-25-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trinitrotoluene (118-96-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4,5-Trinitrotoluene (603-15-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Triphenyl phosphate (115-86-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	4* 40*	50 50	H(WS) H(WS) A(C) A(A)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Tritium (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remark:	* 20,000 picocuries per liter; if two or more radionuclides are present, the sum of their annual dose equivalent to the total body or any organ shall not exceed 4 millirems per year.				
Uranyl ion (CAS No. Not Applicable)	GA	5,000		H(WS)	H
Vanadium (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	14* 190*		A(C) A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Vinyl chloride (75-01-4)	A, A-S, AA, AA-S GA	2	0.3	H(WS) H(WS)	A G
1,2-Xylene (95-47-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,3-Xylene (108-38-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,4-Xylene (106-42-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 65** 590** 19** 170**	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Applies to the sum of 1,2-, 1,3- and 1,4-xylene.				
Zinc (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SD A, A-S, AA, AA-S GA	 * ** 66 95 	2,000 2,000 5,000 5,000	H(WS) H(WS) A(C) A(A) A(C) A(A) E E	B B U U
Remarks:	Aquatic Type standards apply to dissolved form. * $\exp(0.85 [\ln(\text{ppm hardness})] + 0.50)$ ** $0.978 \exp(0.8473 [\ln(\text{ppm hardness})] + 0.884)$				
Zineb (12122-67-7)	GA	1.8		H(WS)	F
Ziram (137-30-4)	GA	4.2		H(WS)	F

TABLE 2
EXPLANATION OF BASIS CODES
IN TABLE 1

JUNE 1998

BASIS CODE	BASIS
A	Oncogenic, Human Health
B	Non-oncogenic, Human Health
F	Former Groundwater Regulations, 6 NYCRR 703.5(a)(3), Human Health or Aesthetics
G	Specific MCL, Human Health or Aesthetics
H	Former Use of or Reference to 10 NYCRR Part 170, Human Health or Aesthetics
I	Principal Organic Contaminant Classes, Human Health
J	Former Groundwater Reference to 10 NYCRR Subpart 5-1 General Standards, Human Health
U	Potable Water, Aesthetics
V	Aquatic Life, Aesthetics
Z	General Organic Guidance Value, Human Health

TABLE 3**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Acenaphthylene	208-96-8
Acephate	30560-19-1
Acetone cyanohydrin	75-86-5
Acetonitrile	75-05-8
Acetophenone	98-86-2
2-Acetylaminofluorene	53-96-3
Allyl alcohol	107-18-6
Anisole	100-66-3
Aramite	140-57-8
Benzaldehyde	100-52-7
Benzeneacetic acid	103-82-2
1,2-Benzenedicarboxaldehyde	643-79-8
Benzenepropanoic acid	501-52-0
Benzoic acid	65-85-0
Benzoic acid, ammonium salt	1863-63-4
Benzo(g,h,i)perylene	191-24-2
Benzo(e)pyrene	192-97-2
Benzyl alcohol	100-51-6
Benzyl chloride	100-44-7
Bis(pentabromophenyl)ether	1163-19-5
4-Bromophenylphenylether	101-55-3
Bromophos	2104-96-3

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Bronopol	52-51-7
1-Butanol	71-36-3
tert-Butyl alcohol	75-65-0
Cacodylic acid	75-60-5
Caprolactam	105-60-1
Captafol	2425-06-1
Carbazole	86-74-8
Carbon disulfide	75-15-0
Chloral	75-87-6
Chloroacetic acid	79-11-8
Chlorobenzilate	510-15-6
4-Chlorobenzoic acid	74-11-3
2-Chloroethyl vinyl ether	110-75-8
4-(4-Chloro-2-methylphenoxy) butyric acid	94-81-5
2-(4-Chloro-2-methylphenoxy) propionic acid	93-65-2
4-Chlorophenyl phenyl ether	7005-72-3
Chlorpyrifos	2921-88-2
Cimectacarb	95266-40-3
Clopyralid	1702-17-6
Cyanazine	21725-46-2
Cyclohexane	110-82-7
Cyclohexanol	108-93-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Cyclohexanone	108-94-1
Cyclohexanone oxime	100-64-1
Cyclohexene	110-83-8
Cyclohexylamine	108-91-8
Cyclopentanone	120-92-3
Cyclotrimethylenetrinitramine	121-82-4
2,4-DB	94-82-6
Decanal	112-31-2
Demeton	8065-48-3
Diallate	2303-16-4
Dibenz(a,h)anthracene	55-70-3
Dibenzofuran	132-64-9
Dibromoacetonitrile	3252-43-5
Dibutyltin chloride	683-18-1
Dibutyltin dilaurate	77-58-7
Dichloroacetic acid	79-43-6
2,3-Dichloro-1,4-napthoquinone	117-80-6
alpha, alpha -Dichlorotoluene	98-87-3
Dicyclopentadiene	77-73-6
Diethylamine	109-89-7
2-(Diethylamino)ethanol	100-37-8
Diethylene glycol	111-46-6

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Diethylene glycol monoethyl ether	111-90-0
Diethyl formamide	617-84-4
Diethyl maleate	141-05-9
o,o-Diethyl-o-2-pyrazinyl phosphorothioate	297-97-2
Diethyltin dycaprylate	2641-56-7
2,3-Dihydro-1,6-dimethyl-1H-indene	17059-48-2
2,3-Dihydro-1-methyl-1H-indene	767-58-8
Diisopropylamine	108-18-9
Diisopropyl ether	108-20-3
Dimethoate	60-51-5
3,3'-Dimethoxybenzidine	119-90-4
Dimethylamine	124-40-3
4-(Dimethylamino)azobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
Dimethylbenzylammonium chloride	1875-92-9
trans-1,4-Dimethylcyclohexane	2207-04-7
Dimethyldioxane	25136-55-4
Dimethyldithiocarbamate	79-45-8
Dimethylethylbenzylammonium chloride	5197-80-8
2,5-Dimethylfuran	625-86-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dimethylhydrazine	540-73-8

TABLE 3 (Continued)

**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD**

JUNE 1998

Note: Refer to Text of Part I for Explanation

**(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Dimethylphenylcarbinol	617-94-7
Dimethylterephthalate	120-61-6
1,4-Dioxane	123-91-1
Dodecanoic acid	143-07-7
Endosulfan I	959-98-8
Endosulfan II	33213-65-9
Endosulfan sulfate	1031-07-8
Epichlorohydrin	106-89-8
Ethion	563-12-2
2-Ethoxyethanol	110-80-5
2-Ethoxyethanol acetate	111-15-9
Ethyl acetate	141-78-6
Ethyl acrylate	140-88-5
Ethyl di-n-propylthiocarbamate (EPTC)	759-96-4
Ethylene cyanohydrin	109-78-4
Ethyl ether	60-29-7
Ethyl methacrylate	97-63-2
Ethyl methane sulfonate	62-50-0
Famphur	52-85-7
Formaldehyde	50-00-0
Formic acid	64-18-6
Furan	110-00-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Furazolidone	67-45-8
Furfural	98-01-1
Furium	531-82-8
Glycidaldehyde	765-34-4
n-Heptane	142-82-5
1-Heptanol	111-70-6
2-Heptanol	543-49-7
3-Heptanol	589-82-2
4-Heptanol	589-55-9
Hexamethylene diamine	124-09-4
Hexanate	25056-70-6
n-Hexane	110-54-3
3-Hexanone	589-38-8
Hydrazine	302-01-2
3-Hydroxycarbofuran	16655-82-6
alpha-Hydroxy-alpha-methylbenzeneacetic acid	515-30-0
1,3-Isobenzofurandione	85-44-9
1(3H)-Isobenzofuranone	87-41-2
Isobutyl alcohol	78-83-1
Isodecyl diphenylphosphate	29761-21-5
Isopropyl alcohol	67-63-0
Isopropylamine	75-31-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Isopropylbenzene hydroperoxide	80-15-9
Isosafrole	120-58-1
Isothiazolones	NA
Linear alkylbenzenesulfonates	NA
Linuron	330-55-2
2,5-Lutidine	589-93-5
Maleic anhydride	108-31-6
Maleic hydrazide	123-33-1
Malononitrile	109-77-3
Methacrylamide	79-39-0
Methanol	67-56-1
Methapyrilene	91-80-5
2-Methoxyethanol	109-86-4
2-Methoxyethanol acetate	110-49-6
2-Methoxy-5-nitroaniline	99-59-2
Methyl acetate	79-20-9
Methylacrylate	96-33-3
Methylamine	74-89-5
2-Methylanthracene	613-12-7
9-Methylanthracene	779-02-2
2-Methylbenzaldehyde	529-20-4
3-Methylbenzaldehyde	620-23-5

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
4-Methylbenzaldehyde	104-87-0
4-Methylbenzenemethanol	589-18-4
2-Methyl benzene sulfonamide	88-19-7
4-Methyl benzene sulfonamide	70-55-3
2-Methylbenzoic acid	118-90-1
3-Methylbenzoic acid	99-04-7
Methyl tert-butyl ether	1634-04-4
3-Methylcholanthrene	56-49-5
Methylcyclopentane	96-37-7
Methylmethanesulfonate	66-27-3
1-Methyl-4-(1-methylethenyl)cyclohexene	138-86-3
2-Methylnaphthalene	91-57-6
Methylolmethacrylamide	923-02-4
4-Methyl-2-pentanone	108-10-1
Methylphthalate	4376-18-5
Metolachlor	51218-45-2
Molinate	2212-67-1
1,4-Naphthoquinone	130-15-4
1-Naphthylamine	134-32-7
2-Naphthylamine	91-59-8
Nitrocyclohexane	1122-60-7
Nitrofurantoin	67-20-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Nitrofurazone	59-87-0
2-Nitropropane	79-46-9
4-Nitroquinoline-1-oxide	56-57-5
N-Nitrosodi-N-butylamine	924-16-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
N-Nitrosodipropylamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitroso-N-methyl urea	684-93-5
N-Nitrosomorpholine	59-89-2
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
Nonanal	124-19-6
1-Nonanol	143-08-8
Octamethylpyrophosphoramine	152-16-9
Oxalic acid, benzyl ester	35448-14-7
Pebulate	1114-71-2
Pentamate	136-25-4
Phenacetin	62-44-2
alpha-Picoline	109-06-8
Polybutene(1-propene,2-methyl homopolymer)	9003-27-4
Prodiamine	29091-21-2

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Profluralin	26399-36-0
Pronamide	23950-58-5
1-Propanol	71-23-8
1-Propene	115-07-1
Propionitrile	107-12-0
Propylene glycol	58-55-6
Propylene glycol monoethyl ether	19089-47-5
Propylene glycol monomethyl ether	1589-49-7
Propylene oxide	75-56-9
Quaternary ammonium compounds	NA
Quinoline	91-22-5
1,4-Quinone dioxide	105-11-3
Reserpine	50-55-5
Rhodamine WT	37299-86-8
Ronnel	299-84-3
Rotenone	83-79-4
Safrole	94-59-7
Sodium adipate, disodium salt	7486-38-6
Sodium diethyldithiocarbamate	148-18-5
Strychnine	57-24-9
Tetraethyl dithiopyrophosphate	3689-24-5
Tetraethyl lead	78-00-2
Tetraethyl tin	597-64-8

TABLE 3 (Continued)

**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD**

JUNE 1998

Note: Refer to Text of Part I for Explanation

**(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
2-(Thiocyanomethylthio) benzothiazole	21564-17-0
Thiofanox	39196-18-4
Thiourea	62-56-6
Toluene diisocyanate	584-84-9
Triallate	2303-17-5
Trichloroacetic acid	76-03-9
alpha, alpha, alpha-Trichlorotoluene	98-07-7
Triethylamine	121-44-8
o,o,o-Triethylphosphorothioate	126-68-1
3,3,5-Trimethylcyclohexanone	873-94-9
Trimethyl phosphate	512-56-1
Vernolate	1929-77-7
Vinyl acetate	108-05-4
Warfarin	81-81-2
NA = Not Applicable	

TABLE 4

DEFINITION FOR PRINCIPAL ORGANIC CONTAMINANT CLASSES*

(excerpted from 6 NYCRR Section 700.1)

JUNE 1998

Principal organic contaminant classes means the following classes of organic chemicals.

- (1) Halogenated alkane: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromine (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero. Specifically excluded from this class are chloroform, bromoform, bromodichloromethane and dibromochloromethane.
- (2) Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.
- (3) Halobenzenes and substituted halobenzenes: Derivatives of benzene which have at least one halogen atom attached to the ring and which may or may not have straight or branched chain hydrocarbon, nitrogen or oxygen substituents.
- (4) Benzene and alkyl- or nitrogen-substituted benzenes: Benzene or a derivative of benzene which has either an alkyl- and/or a nitrogen-substituent.
- (5) Substituted, unsaturated hydrocarbons: A straight or branched chain unsaturated hydrocarbon compound containing one of the following: halogen, aldehyde, nitrile, amide.
- (6) Halogenated non-aromatic cyclic hydrocarbons: A non-aromatic cyclic compound containing a halogen.

*Note: Determining the applicability of the POC groundwater standard to a specific substance can be a complex process that should not be undertaken using these definitions alone. Refer to Section III of the Introduction of this TOGS (page 7) for instructions.

PART II GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

The Division of Water (DOW) regulates point source discharges to class GA groundwater primarily through the use of effluent limitations that have been established statewide. These effluent limitations are set at concentrations that should prevent contaminants from exceeding ambient groundwater standards and guidance values, which are applicable in the saturated zone. Class GA groundwaters are all fresh groundwaters. Groundwater effluent limitations are provided in Table 5 and discussed in this Part. (Ambient standards and guidance values that relate to these effluent limitations were provided in Table 1 of this TOGS and described in Part I).

A. DEFINITIONS

This section presents definitions for key terms that are used in the text and tables. The definitions are similar to the ones that appear in regulation, Part 700. Additional explanation is provided where appropriate.

1. "Groundwaters" mean those waters in saturated zones.
2. "Saturated zones" mean any extensive portion of the earth's crust that contains sufficient water to fill all interconnected voids or pore space.
3. "Fresh groundwaters" mean those groundwaters having a chloride concentration equal to or less than 250 mg/L or a total dissolved solids concentration equal to or less than 1,000 mg/L.
4. "Saline groundwaters" mean groundwaters having a chloride concentration of more than 250 mg/L or a total dissolved solids concentration of more than 1,000 mg/L.
5. "Groundwater standards" and "groundwater guidance values" both mean such measures of purity or quality for any groundwaters in relation to their reasonable and necessary use. "Groundwater standards" are established by the Department pursuant to section 17-0301 of the Environmental Conservation Law, which means the values are included in regulation. "Groundwater guidance values" are established by the Department pursuant to section 702.1 of Title 6, which means the specific values are not in regulation.

Such standards and guidance values are often referred to as ambient values in this document to emphasize that they apply to samples of groundwater and are distinct from effluent limitations, which apply to samples of wastewater at the point of discharge.

6. "Groundwater effluent limitations" mean any restriction on quantities, qualities, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into or allowed to run from an outlet or point source or any other discharge within the meaning of section 17-0501 of the Environmental Conservation Law into groundwater or unsaturated zones. Some groundwater effluent limitations are in regulation (703.6); the remainder are guidance.

B. GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

A groundwater effluent limitation is derived to prevent a contaminant from exceeding the ambient standard or guidance value in the saturated zone. An effluent limitation generally is set at or near the ambient value, partly on the assumption that for many toxic substances, sustained high percent removal in the unsaturated zone cannot be relied upon. The approach used provides a high degree of certainty that the ambient value will not be exceeded and also avoids the need for site-specific evaluations, which would be technically difficult, costly and time consuming.

Groundwater effluent limitations are presented in Table 5, alphabetically by substance. The same substance names as in Table 1 are used. The reader is cautioned that, as for ambient values, groundwater effluent limitations may apply to substances that may be identified only by a group entry, including "Principal organic contaminant." Guidance in Part I, Sections A and B should be useful to determining whether an effluent limitation exists for a particular substance.

The second column lists the groundwater effluent limitation in ug/L, unless otherwise noted. The third column, entitled "Category," provides information about the basis for the effluent limitation. (The Category is not the same as the Basis Code in Table 1.) The five Categories are as follows:

- Category A Effluent limitations that are in regulation (6 NYCRR 703.6)
- Category B Effluent limitations that are numerically equal to ambient guidance values, as provided in 702.16(c)(1).
- Category C Effluent limitations that are derived in this document for substances that have an ambient standard, but no corresponding effluent limitation in 703.6. (For organic substances, the effluent limitations have been set equal to the ambient standards. For metals, the effluent limitations have been set at twice the ambient standard.)
- Category D Effluent limitations for sodium and ammonia require case-by-case determinations. Significant removal of these substances can occur in the unsaturated zone and will be a function of site-specific factors.

Also, as indicated in Table 5, effluent limitations for radiological parameters will be established through Radiation Control Permits, Part 380.

As listed under “Organic substances, total” in Table 5, an effluent limitation of 100 ug/L for the total of certain organic substances is applicable, as provided in 702.16(c)(4). The substances that can be specified for this limitation are those organic substances that have an ambient groundwater standard or guidance value less than 100 ug/L. This includes all substances covered by the principal organic contaminant (POC) groundwater standard (Table 1) and other applicable “group” entries, whether they are listed individually in this TOGS or not.

C. IMPLEMENTATION OF GROUNDWATER EFFLUENT LIMITATIONS

1. Gross or Net Limitations.

Effluent limitations as listed in Table 5 are defined as gross limitations (i.e., without mathematical subtraction of the amounts present in intake water). These gross effluent limitations, however, may not be appropriate where the concentration of a substance in the receiving aquifer exceeds the effluent limitation. General guidance for these situations is provided in other TOGS documents relating to the preparation of SPDES permits.

2. Modifications of Effluent Limitations

Section 702.19 allows, under certain conditions, modification of a groundwater effluent limitation. This includes those effluent limitations in 703.6 and those derived as numerically equivalent to a H(WS) Type guidance value. The included limitations are thus those designated as Categories A and B in Table 5. Such modifications may be allowed where the applicant demonstrates that a less restrictive effluent limitation will be sufficient to prevent groundwater concentrations from exceeding the ambient value. SPDES applications for such modifications are governed by the Uniform Procedures Act and require public notice of the proposed modification.

3. Exceptions to Effluent Limitations

The water quality regulations, section 702.21, provide exceptions for three activities to the requirement to impose the numerical effluent limitations in Table 5. Effluent limitations for the two point source activities, i.e., certain sewage and land application systems, should be determined on a case-by-case basis to achieve or maintain ambient standards and guidance values.

Table 5
NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)
JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Acenaphthene (83-32-9)	20	B
Acetone (67-64-1)	50	B
Acrolein (107-02-8)	5	C
Acrylamide (79-06-1)	5	C
Acrylic acid (79-10-7)	50	B
Acrylonitrile (107-13-1)	5	C
Alachlor (15972-60-8)	0.5	A
Aldicarb (116-06-3)	*	
Remark: * See "Aldicarb and Methomyl."		
Aldicarb and Methomyl (116-06-3;16752-77-5)	0.35	A
Aldicarb sulfone (1646-88-4)	2	B
Aldicarb sulfoxide (1646-87-3)	4	B
Aldrin (309-00-2)	ND	A
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	50	B
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	50*	B
Remark: * Applies to each alkyl diphenyl oxide sulfonate individually.		
Allyl chloride (107-05-1)	5	C
Aluminum (CAS No. Not Applicable)	2,000	A
Ametryn (834-12-8)	50	C
4-Aminobiphenyl (92-67-1)	5	C
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	50*	B
Remark: * Applies to each aminomethylene phosphonic acid salt individually.		
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	1*	B
Remark: * Applies to the sum of these substances.		
3-Aminotoluene (108-44-1)	5	C
4-Aminotoluene (106-49-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable) Remark: * $\text{NH}_3 + \text{NH}_4^+$ as N. Case-by-case determination of need and quantity.	*	D
Aniline (62-53-3)	5	C
Anthracene (120-12-7)	50	B
Antimony (CAS No. Not Applicable)	6	A
Arsenic (CAS No. Not Applicable)	50	A
Aryltriazoles (CAS No. Not Applicable) Remark: * Applies to each aryltriazole individually.	50*	B
Asbestos (fibers > 10 um) (CAS No. Not Applicable)	14,000,000 fibers/L	A
Atrazine (1912-24-9)	7.5	A
Azinphosmethyl (86-50-0)	4.4	A
Azobenzene (103-33-3)	5	C
Barium (CAS No. Not Applicable)	2,000	A
Benefin (1861-40-1)	35	A
Benz(a)anthracene (56-55-3)	0.002	B
Benzene (71-43-2)	1	A
Benzidine (92-87-5)	5	C
Benzisothiazole (271-61-4)	50	B
Benzo(b)fluoranthene (205-99-2)	0.002	B
Benzo(k)fluoranthene (207-08-9)	0.002	B
Benzo(a)pyrene (50-32-8)	ND	A
Beryllium (CAS No. Not Applicable)	3	B
1,1'-Biphenyl (92-52-4)	5	C
Bis(2-chloroethoxy)methane (111-91-1)	5	C
Bis(2-chloroethyl)ether (111-44-4)	1.0	A
Bis(chloromethyl)ether (542-88-1)	5	C
Bis(2-chloro-1-methylethyl)ether (108-60-1)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Bis(2-ethylhexyl)phthalate (117-81-7)	5	A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	125*	B
Remark: * Applies as boron equivalents to the sum of these substances.		
Boron (CAS No. Not Applicable)	2,000	C
Bromacil (314-40-9)	4.4	A
Bromide (CAS No. Not Applicable)	2,000	B
Bromobenzene (108-86-1)	5	C
Bromochloromethane (74-97-5)	5	C
Bromodichloromethane (75-27-4)	50	B
Bromoform (75-25-2)	50	B
Bromomethane (74-83-9)	5	C
Butachlor (23184-66-9)	3.5	A
cis-2-Butenal (15798-64-8)	5	C
trans-2-Butenal (123-73-9)	5	C
cis-2-Butenenitrile (1190-76-7)	5	C
trans-2-Butenenitrile (627-26-9)	5	C
Butoxyethoxyethanol (112-34-5)	50	B
Butoxypropanol (5131-66-8)	50	B
Butylate (2008-41-5)	50	C
n-Butylbenzene (104-51-8)	5	C
sec-Butylbenzene (135-98-8)	5	C
tert-Butylbenzene (98-06-6)	5	C
Butyl benzyl phthalate (85-68-7)	50	B
Butyl isopropyl phthalate (CAS No. Not Applicable)	50	B
Cadmium (CAS No. Not Applicable)	10	A
Captan (133-06-2)	18	A
Carbaryl (63-25-2)	29	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Carbofuran (1563-66-2)	15	B
Carbon tetrachloride (56-23-5)	5	A
Carboxin (5234-68-4)	50	C
Chloramben (CAS No. Not Applicable)	50*	A
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
Chloranil (118-75-2)	5	C
Chlordane (57-74-9)	0.05	A
Chloride (CAS No. Not Applicable)	500,000	A
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	7×10^{-7} equivalents of 2,3,7,8-TCDD*	A
Remark: * Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) as specified by the ambient Class GA H(W)S standard in Table 1 of this document.		
2-Chloroaniline (95-51-2)	5	C
3-Chloroaniline (108-42-9)	5	C
4-Chloroaniline (106-47-8)	5	C
Chlorobenzene (108-90-7)	5	C
4-Chlorobenzotrifluoride (98-56-6)	5	C
1-Chlorobutane (109-69-3)	5	C
Chloroethane (75-00-3)	5	C
Chloroform (67-66-3)	7	A
Chloromethyl methyl ether (107-30-2)	5	C
2-Chloronaphthalene (91-58-7)	10	B
2-Chloronitrobenzene (88-73-3)	5	C
3-Chloronitrobenzene (121-73-3)	5	C
4-Chloronitrobenzene (100-00-5)	5	C
Chloroprene (126-99-8)	5	C
Chlorothalonil (1897-45-6)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Chlorotoluene (95-49-8)	5	C
3-Chlorotoluene (108-41-8)	5	C
4-Chlorotoluene (106-43-4)	5	C
4-Chloro-o-toluidine (95-69-2)	5	C
5-Chloro-o-toluidine (95-79-4)	5	C
3-Chloro-1,1,1-trifluoropropane (460-35-5)	5	C
Chromium (CAS No. Not Applicable)	100	C
Chromium (hexavalent) (CAS No. Not Applicable)	100	A
Chrysene (218-01-9)	0.002	B
Copper (CAS No. Not Applicable)	1,000	A
Cyanide (CAS No. Not Applicable)	400	A
Cyanogen bromide (506-68-3)	5	C
Cyanogen chloride (506-77-4)	5	C
Dalapon (CAS No. Not Applicable)	50*	C
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
p,p'-DDD (72-54-8)	0.3	A
p,p'-DDE (72-55-9)	0.2	A
p,p'-DDT (50-29-3)	0.2	A
Dechlorane Plus (13560-89-9)	5	C
Diazinon (333-41-5)	0.7	A
1,2-Dibromobenzene (583-53-9)	5	C
1,3-Dibromobenzene (108-36-1)	5	C
1,4-Dibromobenzene (106-37-6)	5	C
Dibromochloromethane (124-48-1)	50	B
1,2-Dibromo-3-chloropropane (96-12-8)	0.04	A
Dibromodichloromethane (594-18-3)	5	C
Dibromomethane (74-95-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	50	B
Di-n-butyl phthalate (84-74-2)	50	A
Dicamba (1918-00-9)	0.44	A
Dichlorobenzenes (95-50-1;541-73-1;106-47-6)	3*	A
Remark: * Applies to each dichlorobenzene individually.		
3,3'-Dichlorobenzidine (91-94-1)	5	C
3,4-Dichlorobenzotrifluoride (328-84-7)	5	C
cis-1,4-Dichloro-2-butene (1476-11-5)	5	C
trans-1,4-Dichloro-2-butene (110-57-6)	5	C
Dichlorodifluoromethane (75-71-8)	5	C
1,1-Dichloroethane (75-34-3)	5	C
1,2-Dichloroethane (107-06-2)	0.6	A
1,1-Dichloroethene (75-35-4)	5	C
cis-1,2-Dichloroethene (156-59-2)	5	C
trans-1,2-Dichloroethene (156-60-5)	5	C
Dichlorofluoromethane (75-43-4)	5	C
2,4-Dichlorophenol (120-83-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
2,4-Dichlorophenoxyacetic acid (94-75-7)	50	A
1,1-Dichloropropane (78-99-9)	5	C
1,2-Dichloropropane (78-87-5)	1	A
1,3-Dichloropropane (142-28-9)	5	C
2,2-Dichloropropane (594-20-7)	5	C
1,1-Dichloropropene (563-58-6)	5	C
1,3-Dichloropropene (sum of cis- and trans- isomers) (542-75-6)	0.4	A
2,3-Dichlorotoluene (32768-54-0)	5	C
2,4-Dichlorotoluene (95-73-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,5-Dichlorotoluene (19398-61-9)	5	C
2,6-Dichlorotoluene (118-69-4)	5	C
3,4-Dichlorotoluene (95-75-0)	5	C
3,5-Dichlorotoluene (25186-47-4)	5	C
Dieldrin (60-57-1)	0.004	A
Di(2-ethylhexyl)adipate (103-23-1)	20	A
Diethyl phthalate (84-66-2)	50	B
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	5	C
1,2-Diisopropylbenzene (577-55-9)	5	C
1,3-Diisopropylbenzene (99-62-7)	5	C
1,4-Diisopropylbenzene (100-18-5)	5	C
N,N-Dimethylaniline (121-69-7)	1	A
2,3-Dimethylaniline (87-59-2)	5	C
2,4-Dimethylaniline (95-68-1)	5	C
2,5-Dimethylaniline (95-78-3)	5	C
2,6-Dimethylaniline (87-62-7)	5	C
3,4-Dimethylaniline (95-64-7)	5	C
3,5-Dimethylaniline (108-69-0)	5	C
3,3'-Dimethylbenzidine (119-93-7)	5	C
4,4'-Dimethylbibenzyl (538-39-6)	5	C
4,4'-Dimethyldiphenylmethane (4957-14-6)	5	C
Dimethylformamide (68-12-2)	50	B
alpha, alpha-Dimethyl phenethylamine (122-09-8)	5	C
2,4-Dimethylphenol (105-67-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Dimethyl phthalate (131-11-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,4-Dinitrophenol (51-28-5) Remark: * See "Phenolic compounds (total phenols)."	*	
Dimethyl tetrachloroterephthalate (1861-32-1)	50	C
1,3-Dinitrobenzene (99-65-0)	5	C
2,3-Dinitrotoluene (602-01-7)	5	C
2,4-Dinitrotoluene (121-14-2)	5	C
2,5-Dinitrotoluene (619-15-8)	5	C
2,6-Dinitrotoluene (606-20-2)	5	C
3,4-Dinitrotoluene (610-39-9)	5	C
3,5-Dinitrotoluene (618-85-9)	5	C
Di-n-octyl phthalate (117-84-0)	50	B
Dinoseb (88-85-7) Remark: * See "Phenolic compounds (total phenols)."	*	
Diphenamid (957-51-7)	50	C
Diphenylamine (122-39-4)	5	C
1,1-Diphenylhydrazine (530-50-7)	ND	C
1,2-Diphenylhydrazine (122-66-7)	ND	A
Diquat (2764-72-9)	20	A
Dissolved solids, total (CAS No. Not Applicable) Remark: * 1,000 mg/L; applies only in the counties of Nassau and Suffolk.	*	A
Disulfoton (298-04-4) Remark: * See "Phorate and Disulfoton."	*	
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1) Remark: * Applies to the sum of these substances.	50*	B
Dyphylline (479-18-5)	50	B
Endothall (145-73-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Endrin (72-20-8)	ND	A
Endrin aldehyde (7421-93-4)	5	C
Endrin ketone (53494-70-5)	5	C
Ethylbenzene (100-41-4)	5	C
Ethylene chlorohydrin (107-07-3)	50	B
Ethylene dibromide (106-93-4)	6×10^{-4}	A
Ethylene glycol (107-21-1)	50	B
Ethylene oxide (75-21-8)	0.05	B
Ethylenethiourea (96-45-7)	ND	A
Ferbam (14484-64-1)	4.2	A
Fluometuron (2164-17-2)	50	C
Fluoranthene (206-44-0)	50	B
Fluorene (86-73-7)	50	B
Fluoride (CAS No. Not Applicable)	3,000	A
Foaming agents (CAS No. Not Applicable)	1,000*	A
Remark: * Determined as methylene blue active substances (MBAS) or by other tests as specified by the commissioner.		
Folpet (133-07-3)	50	A
Glyphosate (1071-83-6)	50	B
Gross alpha radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Gross beta radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Guaifenesin (93-14-1)	50	B
Heptachlor (76-44-8)	0.04	A
Heptachlor epoxide (1024-57-3)	0.03	A
Hexachlorobenzene (118-74-1)	0.04	A
Hexachlorobutadiene (87-68-3)	0.5	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
alpha-Hexachlorocyclohexane (319-84-6)	0.01	A
beta-Hexachlorocyclohexane (319-85-7)	0.04	A
delta-Hexachlorocyclohexane (319-86-8)	0.04	A
epsilon-Hexachlorocyclohexane (6108-10-7)	0.04	A
gamma-Hexachlorocyclohexane (58-89-9)	0.05	A
Hexachlorocyclopentadiene (77-47-4)	5	C
Hexachloroethane (67-72-1)	5	C
Hexachlorophene (70-30-4)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Hexachloropropene (1888-71-7)	5	C
2-Hexanone (591-78-6)	50	B
Hexazinone (51235-04-2)	50	C
Hydrogen sulfide (7783-06-4)	*	
Remark: * See "Sulfides, total."		
Hydroquinone (123-31-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1-Hydroxyethylidene-1,1-diphosphonic acid (2809-21-4)	50	B
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Indeno (1,2,3-cd) pyrene (193-39-5)	0.002	B
Iron (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Iron and Manganese (CAS No. Not Applicable)	1,000*	A
Remark: * Applies to the sum of these substances.		
Isodrin (465-73-6)	5	C
Isophorone (78-59-1)	50	B
Isopropalin (33820-53-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Isopropylbenzene (98-82-8)	5	C
2-Isopropyltoluene (527-84-4)	5	C
3-Isopropyltoluene (535-77-3)	5	C
4-Isopropyltoluene (99-87-6)	5	C
Kepone (143-50-0)	ND	A
Lead (CAS No. Not Applicable)	50	A
Magnesium (CAS No. Not Applicable)	35,000	B
Malathion (121-75-5)	7.0	A
Mancozeb (8018-01-7)	1.8	A
Maneb (12427-38-2)	1.8	A
Manganese (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Mercaptobenzothiazole (149-30-4)	50	B
Mercury (CAS No. Not Applicable)	1.4	A
Methacrylic acid (79-41-4)	50	B
Methacrylonitrile (126-98-7)	5	C
Methomyl (16752-77-5)	*	
Remark: * See "Aldicarb and Methomyl."		
Methoxychlor (72-43-5)	35	A
(1-Methoxyethyl) benzene (4013-34-7)	50	B
(2-Methoxyethyl) benzene (3558-60-9)	50	B
N-Methylaniline (100-61-8)	5	C
Methylbenz(a)anthracenes (CAS No. Not Applicable)	0.002*	B
Remark: * Applies to the sum of these substances.		
Methyl chloride (74-87-3)	5	C
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	0.44	A
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
4,4'-Methylene-bis-(N-methyl)aniline (1807-55-2)	5	C
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	5	C
Methylene bithiocyanate (6317-18-6)	50	B
Methylene chloride (dichloromethane) (75-09-2)	5	A
4-(1-Methylethoxy)-1-butanol (31600-69-8)	50	B
2-Methylethyl-1,3-dioxolane (126-39-6)	50	B
Methyl ethyl ketone (78-93-3)	50	B
Methyl iodide (74-88-4)	5	C
Methyl methacrylate (80-62-6)	50	A
Methyl parathion (298-00-0)	*	
Remark: * See "Parathion and Methyl parathion."		
alpha-Methylstyrene (98-83-9)	5	C
2-Methylstyrene (611-15-4)	5	C
3-Methylstyrene (100-80-1)	5	C
4-Methylstyrene (622-97-9)	5	C
Metribuzin (21087-64-9)	50	C
Mirex (2385-85-5)	0.03	A
Nabam (142-59-6)	1.8	A
Naphthalene (91-20-3)	10	B
Niacinamide (98-92-0)	500	B
Nickel (CAS No. Not Applicable)	200	A
Nitralin (4726-14-1)	35	A
Nitrate (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrilotriacetic acid (CAS No. Not Applicable)	3*	A
Remark: * Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less."		
Nitrite (expressed as N) (CAS No. Not Applicable)	2,000	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Nitroaniline (88-74-4)	5	C
3-Nitroaniline (99-09-2)	5	C
4-Nitroaniline (100-01-6)	5	C
Nitrobenzene (98-95-3)	0.4	A
Nitrogen, total (expressed as N) (CAS No. Not Applicable)	10,000*	A
Remark: * Applies only in the counties of Nassau and Suffolk.		
N-Nitrosodiphenylamine (86-30-6)	50	B
2-Nitrotoluene (88-72-2)	5	C
3-Nitrotoluene (99-08-1)	5	C
4-Nitrotoluene (99-99-0)	5	C
5-Nitro-o-toluidine (99-55-8)	5	C
Octachlorostyrene (29082-74-4)	0.2	A
Oil and Grease (CAS No. Not Applicable)	15,000*	A
Remark: * Applies to the sum of oil and grease.		
Organic substances, total (CAS No. Not Applicable)	100*	
Remark: * This value applies to the total of all organic substances listed in this Table with a groundwater effluent limitation less than 100 ug/L. Included in the total are all organic substances covered by the principal organic contaminant value and those in other "group" entries, whether or not the substances are individually listed in this Table.		
Oxamyl (23135-22-0)	50	C
Paraquat (4685-14-7)	3.0	A
Parathion (56-38-2)	*	
Remark: * See "Parathion and Methyl parathion."		
Parathion and Methyl parathion (56-38-2; 298-00-0)	1.5*	A
Remark: * Applies to the sum of these substances.		
Pendimethalin (40487-42-1)	5	C
Pentachlorobenzene (608-93-5)	5	C
Pentachloroethane (76-01-7)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Pentachloronitrobenzene (82-68-8)	ND	A
Pentachlorophenol (87-86-5)	*	
Remark: * See "Phenolic compounds (total phenols)."		
pH (CAS No. Not Applicable)	*	A
Remark: * pH shall not be lower than 6.5 or the pH of the natural groundwater, whichever is lower, nor shall be greater than 8.5 or the pH of the natural groundwater, whichever is greater.		
Phenanthrene (85-01-8)	50	B
Phenol (108-95-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenolic compounds (total phenols) (CAS No. Not Applicable)	2*	A
Remark: * Applies to the sum of these substances.		
Phenols, total chlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenols, total unchlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1,2-Phenylenediamine (95-54-5)	5	C
1,3-Phenylenediamine (108-45-2)	5	C
1,4-Phenylenediamine (106-50-3)	5	C
Phenyl ether (101-84-8)	10	B
Phenylhydrazine (100-63-0)	5	C
Phenylpropanolamine (14838-15-4)	50	B
3-Phenyl-1-propene (637-50-3)	5	C
cis-1-Phenyl-1-propene (766-90-5)	5	C
trans-1-Phenyl-1-propene (873-66-5)	5	C
Phorate (298-02-2)	*	
Remark: * See "Phorate and Disulfoton."		

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Phorate and Disulfoton (298-02-2; 298-04-4) Remark: * Applies to the sum of these substances.	ND*	A
Picloram (CAS No. Not Applicable) Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.	50*	C
Polybrominated biphenyls (CAS No. Not Applicable) Remark: * Applies to each congener individually.	5*	C
Polychlorinated biphenyls (CAS No. Not Applicable) Remark: * Applies to the sum of these substances.	0.09*	A
Principal organic contaminant (CAS No. Not Applicable) Remark: * Applies to each individual substance to which the principal organic contaminant (POC) class GA ambient groundwater standard applies (whether listed in this TOGS or not) <u>except</u> for those substances with a groundwater effluent limitation other than 5 ug/L listed in this Table. For the convenience of the reader, the groundwater effluent limitations of 5 ug/L for <u>some</u> (but not all) individual POCs are listed in this Table.	5*	C
Prometon (1610-18-0)	50	C
Propachlor (1918-16-7)	35	A
Propanil (709-98-8)	7.0	A
Propazine (139-40-2)	16	A
Propham (122-42-9)	50	C
n-Propylbenzene (103-65-1)	5	C
Pyrene (129-00-0)	50	B
Pyridine (110-86-1)	50	B
Radium 226 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 226 and Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Selenium (CAS No. Not Applicable)	20	A
Silver (CAS No. Not Applicable)	100	A
Simazine (122-34-9)	0.5	A
Sodium (CAS No. Not Applicable)	*	D
Remark: * Case-by-case evaluation.		
Styrene (100-42-5)	930	A
Sulfate (CAS No. Not Applicable)	500,000	A
Sulfide (CAS No. Not Applicable)	1,000	A
Tebuthiuron (34014-18-1)	50	C
Terbacil (5902-51-2)	50	C
Terbufos (13071-79-9)	0.09	B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	*	*
Remark: * Value of 5 ug/L, Category C applies to each tetrachlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1,2-Tetrachloroethane (630-20-6)	5	C
1,1,2,2-Tetrachloroethane (79-34-5)	5	C
Tetrachloroethene (127-18-4)	5	C
Tetrachloroterephthalic acid (2136-79-0)	50	C
alpha, alpha, alpha, 4-Tetrachlorotoluene (5216-25-1)	5	C
Tetrahydrofuran (109-99-9)	50	B
1,2,3,4-Tetramethylbenzene (488-23-3)	5	C
1,2,3,5-Tetramethylbenzene (527-53-7)	5	C
1,2,4,5-Tetramethylbenzene (95-93-2)	5	C
Thallium (CAS No. Not Applicable)	0.5	B
Theophylline (58-55-9)	40	B
Thiram (137-26-8)	1.8	A
Toluene (108-88-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Toluene-2,4-diamine (95-80-7)	5	C
Toluene-2,5-diamine (95-70-5)	5	C
Toluene-2,6-diamine (823-40-5)	5	C
o-Toluidine (95-53-4)	5	C
Tolyltriazole (29385-43-1)	50	B
Toxaphene (8001-35-2)	0.06	A
1,2,4-Tribromobenzene (615-54-3)	5	C
Tributyltin oxide (56-35-9)	50	B
2,4,6-Trichloroaniline (634-93-5)	5	C
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	*	*
Remark: * Value of 5 ug/L, Category C applies to each trichlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1-Trichloroethane (71-55-6)	5	C
1,1,2-Trichloroethane (79-00-5)	1	A
Trichloroethene (79-01-6)	5	A
Trichlorofluoromethane (75-69-4)	5	C
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	35	A
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	0.26	A
1,1,2-Trichloropropane (598-77-6)	5	C
1,2,3-Trichloropropane (96-18-4)	0.04	A
cis-1,2,3-Trichloropropene (13116-57-9)	5	C
trans-1,2,3-Trichloropropene (13116-58-0)	5	C
alpha,2,4-Trichlorotoluene (94-99-5)	5	C
alpha,2,6-Trichlorotoluene (2014-83-7)	5	C
alpha,3,4-Trichlorotoluene (102-47-6)	5	C
alpha,alpha,2-Trichlorotoluene (88-66-4)	5	C
alpha,alpha,4-Trichlorotoluene (13940-94-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,3,4-Trichlorotoluene (7359-72-0)	5	C
2,3,5-Trichlorotoluene (56961-86-5)	5	C
2,3,6-Trichlorotoluene (2077-46-5)	5	C
2,4,5-Trichlorotoluene (6639-30-1)	5	C
2,4,6-Trichlorotoluene (23749-65-7)	5	C
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	5	C
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	5	C
Trifluralin (1582-09-8)	35	A
1,2,3-Trimethylbenzene (526-73-8)	5	C
1,2,4-Trimethylbenzene (95-63-6)	5	C
1,3,5-Trimethylbenzene (108-67-8)	5	C
2,3,6-Trimethylpyridine (1462-84-6)	50	B
2,4,6-Trimethylpyridine (108-75-8)	50	B
sym-Trinitrobenzene (99-35-4)	5	C
2,3,4-Trinitrotoluene (602-29-9)	5	C
2,3,6-Trinitrotoluene (18292-97-2)	5	C
2,4,5-Trinitrotoluene (610-25-3)	5	C
2,4,6-Trinitrotoluene (118-96-7)	5	C
3,4,5-Trinitrotoluene (603-15-6)	5	C
Triphenyl phosphate (115-86-6)	50	B
Uranyl ion (CAS No. Not Applicable)	10,000	C
Vinyl chloride (75-01-4)	2	A
1,2-Xylene (95-47-6)	5	C
1,3-Xylene (108-38-3)	5	C
1,4-Xylene (106-42-3)	5	C
Zinc (CAS No. Not Applicable)	5,000	A
Zineb (12122-67-7)	1.8	A
Ziram (137-30-4)	4.2	A

INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER

JUNE 1998

- Notes: 1. This index refers to the user to Table 1, 3 or 5 of this TOGS. Entries within each Table are listed alphabetically. As this index indicates, a few entries are listed in both Tables 1 and 3. Substances in Table 1 with an ambient groundwater value also have a groundwater effluent limitation and are thus also listed in Table 5. The user is cautioned that not all substances included in "group" entries are individually listed in this index, and should read the text of Parts I and II of this TOGS.
2. Where an entry includes multiple substances, underlining identifies the specific substances that corresponds to the CAS number listed. Entries having no CAS number are indicated by "NA" (not applicable).
3. CAS numbers that represent groups of substances, including pairs of cis- and trans- isomers, may not be included in this index. The user may need to determine individual substances and CAS numbers.
4. Where entries in this index are separated by a semicolon, the table listings are also so separated and apply to the entry before and after the semicolon, respectively.

CAS Number	Entry	Table
NA	Alkyl diphenyl oxide sulfonates	1,5
NA	Aluminum, ionic; Aluminum	1;5
NA	Aminomethylene phosphonic acid salts	1,5
NA	Ammonia and <u>Ammonium</u>	1,5
NA	Antimony	1,5
NA	Arsenic	1,5
NA	Aryltriazoles	1,5
NA	Asbestos	1,5
NA	Barium	1,5
NA	Beryllium	1,5
NA	Boric acid, Borates and Metaborates	1,5
NA	Boron	1,5
NA	Bromide	1,5
NA	Butyl isopropyl phthalate	1,5
NA	Cadmium	1,5
NA	Chloramben	1,5
NA	Chloride	1,5
NA	Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
NA	Chlorine, Total Residual	1
NA	Chromium	1,5
NA	Chromium (hexavalent)	1,5
NA	Cobalt	1
NA	Copper	1,5
NA	Cyanide	1,5
NA	Dalapon	1,5
NA	Dissolved solids, total	5
NA	Fluoride	1,5
NA	Foaming agents	1,5
NA	Gross alpha radiation	1,5
NA	Gross beta radiation	1,5
NA	Iron; <u>Iron</u> and Manganese	1,5;1,5
NA	Isothiazolones, total; Isothiazolones	1;3
NA	Lead	1,5
NA	Linear alkylbenzene sulfonates (LAS)	1,3
NA	Magnesium	1,5
NA	Manganese; Iron and <u>Manganese</u>	1,5;1,5
NA	Mercury	1,5
NA	Methylbenz(a)anthracenes	1,5
NA	Nickel	1,5
NA	Nitrate (expressed as N); <u>Nitrate</u> and Nitrite (expressed as N)	1,5;1,5
NA	Nitrilotriacetic acid	1,5
NA	Nitrite (expressed as N); Nitrate and <u>Nitrite</u> (expressed as N)	1,5;1,5
NA	Nitrogen, total (expressed as N)	5
NA	Oil and Grease	5
NA	Organic substances, total	5
NA	pH	5
NA	Phenolic compounds (total phenols)	1,5

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(Continued)**

CAS Number	Entry	Table
NA	Phenols, total chlorinated	1,5
NA	Phenols, total unchlorinated	1,5
NA	Phosphorus	1
NA	Picloram	1,5
NA	Polybrominated biphenyls	1,5
NA	Polychlorinated biphenyls	1,5
NA	Principal organic contaminant	1,5
NA	Quaternary ammonium compounds	1,3
NA	Radium 226; <u>Radium 226</u> and Radium 228	1,5;1,5
NA	Radium 228; Radium 226 and <u>Radium 228</u>	1,5;1,5
NA	Selenium	1,5
NA	Silver	1,5
NA	Sodium	1,5
NA	Strontium 90	1
NA	Sulfate	1,5
NA	Sulfides, total; Sulfide	1;5
NA	Sulfite	1
NA	Thallium	1,5
NA	Tritium	1
NA	Uranyl ion	1,5
NA	Vanadium	1
NA	Zinc	1,5
50-00-0	Formaldehyde	3
50-29-3	p,p'-DDT	1,5
50-32-8	Benzo(a)pyrene	1,5
50-55-5	Reserpine	3
51-28-5	2,4-Dinitrophenol	1,5
52-51-7	Bronopol	3
52-85-7	Famphur	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
53-96-3	2-Acetylaminofluorene	3
55-18-5	N-Nitrosodiethylamine	3
55-70-3	Dibenz(a,h)anthracene	3
56-23-5	Carbon tetrachloride	1,5
56-35-9	Tributyltin oxide	1,5
56-38-2	Parathion; <u>Parathion</u> & Methyl parathion	1;1,5
56-49-5	3-Methylcholanthrene	3
56-55-3	Benz(a)anthracene	1,5
56-57-5	4-Nitroquinoline-1-oxide	3
57-14-7	1,1-Dimethylhydrazine	3
57-24-9	Strychnine	3
57-74-9	Chlordane	1,5
57-97-6	7, 12-Dimethylbenz(a)anthracene	3
58-55-6	Propylene glycol	3
58-55-9	Theophylline	1,5
58-89-9	gamma-Hexachlorocyclohexane	1,5
59-87-0	Nitrofurazone	3
59-89-2	N-Nitrosomorpholine	3
60-11-7	4-(Dimethylamino)azobenzene	3
60-29-7	Ethyl ether	3
60-51-5	Dimethoate	3
60-57-1	Aldrin and <u>Dieldrin</u> ; Dieldrin	1;1,5
62-44-2	Phenacetin	3
62-50-0	Ethyl methane sulfonate	3
62-53-3	Aniline	1,5
62-56-6	Thiourea	3
62-75-9	N-Nitrosodimethylamine	3
63-25-2	Carbaryl	1,5
64-18-6	Formic acid	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
65-85-0	Benzoic acid	3
66-27-3	Methylmethanesulfonate	3
67-20-9	Nitrofurantoin	3
67-45-8	Furazolidone	3
67-56-1	Methanol	3
67-63-0	Isopropyl alcohol	3
67-64-1	Acetone	1,5
67-66-3	Chloroform	1,5
67-72-1	Hexachloroethane	1,5
68-12-2	Dimethylformamide	1,5
70-30-4	Hexachlorophene	1,5
70-55-3	4-Methyl benzene sulfonamide	3
71-23-8	1-Propanol	3
71-36-3	1-Butanol	3
71-43-2	Benzene	1,5
71-55-6	1,1,1-Trichloroethane	1,5
72-20-8	Endrin	1,5
72-43-5	Methoxychlor	1,5
72-54-8	p,p'-DDD	1,5
72-55-9	p,p'-DDE	1,5
74-11-3	4-Chlorobenzoic acid	3
74-83-9	Bromomethane	1,5
74-87-3	Methyl chloride	1,5
74-88-4	Methyl iodide	1,5
74-89-5	Methylamine	3
74-95-3	Dibromomethane	1,5
74-97-5	Bromochloromethane	1,5
75-00-3	Chloroethane	1,5
75-01-4	Vinyl chloride	1,5

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CAS Number	Entry	Table
75-05-8	Acetonitrile	3
75-09-2	Methylene chloride	1,5
75-15-0	Carbon disulfide	3
75-21-8	Ethylene oxide	1,5
75-25-2	Bromoform	1,5
75-27-4	Bromodichloromethane	1,5
75-31-0	Isopropylamine	3
75-34-3	1,1-Dichloroethane	1,5
75-35-4	1,1-Dichloroethene	1,5
75-43-4	Dichlorofluoromethane	1,5
75-56-9	Propylene oxide	3
75-60-5	Cacodylic acid	3
75-65-0	tert-Butyl alcohol	3
75-69-4	Trichlorofluoromethane	1,5
75-71-8	Dichlorodifluoromethane	1,5
75-86-5	Acetone cyanohydrin	3
75-87-6	Chloral	3
76-01-7	Pentachloroethane	1,5
76-03-9	Trichloroacetic acid	3
76-12-0	1,2-Difluoro-1,1,2,2-tetrachloroethane	1,5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1,5
76-44-8	Heptachlor	1,5
77-47-4	Hexachlorocyclopentadiene	1,5
77-58-7	Dibutyltin dilaurate	3
77-73-6	Dicyclopentadiene	3
78-00-2	Tetraethyl lead	3
78-59-1	Isophorone	1,5
78-83-1	Isobutyl alcohol	3
78-87-5	1,2-Dichloropropane	1,5

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
78-93-3	Methyl ethyl ketone	1,5
78-99-9	1,1-Dichloropropane	1,5
79-00-5	1,1,2-Trichloroethane	1,5
79-01-6	Trichloroethene	1,5
79-06-1	Acrylamide	1,5
79-10-7	Acrylic acid	1,5
79-11-8	Chloroacetic acid	3
79-20-9	Methyl acetate	3
79-34-5	1,1,2,2-Tetrachloroethane	1,5
79-39-0	Methacrylamide	3
79-41-4	Methacrylic acid	1,5
79-43-6	Dichloroacetic acid	3
79-45-8	Dimethyldithiocarbamate	3
79-46-9	2-Nitropropane	3
80-15-9	Isopropylbenzene hydroperoxide	3
80-62-6	Methyl methacrylate	1,5
81-81-2	Warfarin	3
82-68-8	Pentachloronitrobenzene	1,5
83-32-9	Acenaphthene	1,5
83-79-4	Rotenone	3
84-66-2	Diethyl phthalate	1,5
84-74-2	Di-n-butylphthalate	1,5
85-00-7	See 2764-72-9	
85-01-8	Phenanthrene	1,5
85-44-9	1,3-Isobenzofurandione	3
85-68-7	Butyl benzyl phthalate	1,5
86-30-6	N-Nitrosodiphenylamine	1,5
86-50-0	Azinphosmethyl	1,5
86-73-7	Fluorene	1,5

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
86-74-8	Carbazole	3
87-41-2	1(3H)-Isobenzofuranone	3
87-59-2	2,3-Dimethylaniline	1,5
87-61-6	Trichlorobenzenes (1,2,3-)	1,5
87-62-7	2,6-Dimethylaniline	1,5
87-68-3	Hexachlorobutadiene	1,5
87-86-5	Pentachlorophenol	1,5
88-19-7	2-Methyl benzene sulfonamide	3
88-66-4	alpha, alpha,2-Trichlorotoluene	1,5
88-72-2	2-Nitrotoluene	1,5
88-73-3	2-Chloronitrobenzene	1,5
88-74-4	2-Nitroaniline	1,5
88-85-7	Dinoseb	1,5
91-20-3	Naphthalene	1,5
91-22-5	Quinoline	3
91-57-6	2-Methylnaphthalene	1,3
91-58-7	2-Chloronaphthalene	1,5
91-59-8	2-Napthylamine	3
91-80-5	Methapyrilene	3
91-94-1	3,3'-Dichlorobenzidine	1,5
92-52-4	1,1'-Biphenyl	1,5
92-67-1	4-Aminobiphenyl	1,5
92-87-5	Benzidine	1,5
93-14-1	Guaifenesin	1,5
93-65-2	2-(4-Chloro-2-methylphenoxy)propionic acid	3
93-72-1	2,4,5-Trichlorophenoxypropionic acid	1,5
93-76-5	2,4,5-Trichlorophenoxyacetic acid	1,5
94-59-7	Safrole	3
94-74-6	2-Methyl-4-chlorophenoxyacetic acid	1,5

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
94-75-7	2,4-Dichlorophenoxyacetic acid	1,5
94-81-5	4-(4-Chloro-2-methylphenoxy)butyric acid	3
94-82-6	2,4-DB	3
94-99-5	alpha,2,4-Trichlorotoluene	1,5
95-47-6	1,2-Xylene	1,5
95-49-8	2-Chlorotoluene	1,5
95-50-1	Dichlorobenzenes (1,2-)	1,5
95-51-2	2-Chloroaniline	1,5
95-53-4	o-Toluidine	1,5
95-54-5	1,2-Phenylenediamine	1,5
95-63-6	1,2,4-Trimethylbenzene	1,5
95-64-7	3,4-Dimethylaniline	1,5
95-68-1	2,4-Dimethylaniline	1,5
95-69-2	4-Chloro-o-toluidine	1,5
95-70-5	Toluene-2,5-diamine	1,5
95-73-8	2,4-Dichlorotoluene	1,5
95-75-0	3,4-Dichlorotoluene	1,5
95-78-3	2,5-Dimethylaniline	1,5
95-79-4	5-Chloro-o-toluidine	1,5
95-80-7	Toluene-2,4-diamine	1,5
95-84-1	Aminocresols (2-Amino-para-cresol)	1,5
95-93-2	1,2,4,5-Tetramethylbenzene	1,5
95-94-3	Tetrachlorobenzenes (1,2,4,5-)	1,5
96-12-8	1,2-Dibromo-3-chloropropane	1,5
96-18-4	1,2,3-Trichloropropane	1,5
96-19-5	See 13116-57-9 and 13116-58-0	
96-33-3	Methylacrylate	3
96-37-7	Methylcyclopentane	3
96-45-7	Ethylenethiourea	1,5

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CAS Number	Entry	Table
97-63-2	Ethyl methacrylate	3
98-01-1	Furfural	3
98-06-6	tert-Butylbenzene	1,5
98-07-7	alpha, alpha, alpha-Trichlorotoluene	3
98-56-6	4-Chlorobenzotrifluoride	1,5
98-82-8	Isopropylbenzene	1,5
98-83-9	alpha-Methylstyrene	1,5
98-86-2	Acetophenone	3
98-87-3	alpha, alpha-Dichlorotoluene	3
98-92-0	Niacinamide	1,5
98-95-3	Nitrobenzene	1,5
99-04-7	3-Methylbenzoic acid	3
99-08-1	3-Nitrotoluene	1,5
99-09-2	3-Nitroaniline	1,5
99-35-4	sym-Trinitrobenzene	1,5
99-55-8	5-Nitro-o-toluidine	1,5
99-59-2	2-Methoxy-5-nitroaniline	3
99-62-7	1,3-Diisopropylbenzene	1,5
99-65-0	1,3-Dinitrobenzene	1,5
99-87-6	4-Isopropyltoluene	1,5
99-99-0	4-Nitrotoluene	1,5
100-00-5	4-Chloronitrobenzene	1,5
100-01-6	4-Nitroaniline	1,5
100-18-5	1,4-Diisopropylbenzene	1,5
100-37-8	2-(Diethylamino)ethanol	3
100-41-4	Ethylbenzene	1,5
100-42-5	Styrene	1,5
100-44-7	Benzyl chloride	3
100-51-6	Benzyl alcohol	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
100-52-7	Benzaldehyde	3
100-61-8	N-Methylaniline	1,5
100-63-0	Phenylhydrazine	1,5
100-64-1	Cyclohexanone oxime	3
100-66-3	Anisole	3
100-75-4	N-Nitrosopiperidine	3
100-80-1	3-Methylstyrene	1,5
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)	1,5
101-55-3	4-Bromophenylphenylether	3
101-61-1	4,4'-Methylene-bis-(N,N'-dimethyl)aniline	1,5
101-84-8	Phenyl ether	1,5
102-47-6	alpha, 3,4-Trichlorotoluene	1,5
103-23-1	Di(2-ethylhexyl)adipate	1,5
103-33-3	Azobenzene	1,5
103-65-1	n-Propylbenzene	1,5
103-82-2	Benzeneacetic acid	3
104-51-8	n-Butylbenzene	1,5
104-87-0	4-Methylbenzaldehyde	3
105-11-3	1,4-Quinone dioxide	3
105-60-1	Caprolactam	3
105-67-9	2,4-Dimethylphenol	1,5
106-37-6	1,4-Dibromobenzene	1,5
106-42-3	1,4-Xylene	1,5
106-43-4	4-Chlorotoluene	1,5
106-46-7	Dichlorobenzenes (1,4-)	1,5
106-47-8	4-Chloroaniline	1,5
106-49-0	4-Aminotoluene	1,5
106-50-3	1,4-Phenylenediamine	1,5
106-89-8	Epichlorohydrin	3

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CAS Number	Entry	Table
106-93-4	Ethylene dibromide	1,5
107-02-8	Acrolein	1,5
107-05-1	Allyl chloride	1,5
107-06-2	1,2-Dichloroethane	1,5
107-07-3	Ethylene chlorohydrin	1,5
107-12-0	Propionitrile	3
107-13-1	Acrylonitrile	1,5
107-18-6	Allyl alcohol	3
107-21-1	Ethylene glycol	1,5
107-30-2	Chloromethyl methyl ether	1,5
108-05-4	Vinyl acetate	3
108-10-1	4-Methyl-2-pentanone	3
108-18-9	Diisopropylamine	3
108-20-3	Diisopropyl ether	3
108-31-6	Maleic anhydride	3
108-36-1	1,3-Dibromobenzene	1,5
108-38-3	1,3-Xylene	1,5
108-41-8	3-Chlorotoluene	1,5
108-42-9	3-Chloroaniline	1,5
108-44-1	3-Aminotoluene	1,5
108-45-2	1,3-Phenylenediamine	1,5
108-60-1	Bis(2-chloro-1-methylethyl)ether	1,5
108-67-8	1,3,5-Trimethylbenzene	1,5
108-69-0	3,5-Dimethylaniline	1,5
108-70-3	Trichlorobenzenes (1,3,5-)	1,5
108-75-8	2,4,6-Trimethylpyridine	1,5
108-86-1	Bromobenzene	1,5
108-88-3	Toluene	1,5
108-90-7	Chlorobenzene	1,5

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
108-91-8	Cyclohexylamine	3
108-93-0	Cyclohexanol	3
108-94-1	Cyclohexanone	3
108-95-2	Phenol	1,5
109-06-8	alpha-Picoline	3
109-69-3	1-Chlorobutane	1,5
109-77-3	Malononitrile	3
109-78-4	Ethylene cyanohydrin	3
109-86-4	2-Methoxyethanol	3
109-89-7	Diethylamine	3
109-99-9	Tetrahydrofuran	1,5
110-00-9	Furan	3
110-49-6	2-Methoxyethanol acetate	3
110-54-3	n-Hexane	3
110-57-6	trans-1,4-Dichloro-2-butene	1,5
110-75-8	2-Chloroethyl vinyl ether	3
110-80-5	2-Ethoxyethanol	3
110-82-7	Cyclohexane	3
110-83-8	Cyclohexene	3
110-86-1	Pyridine	1,5
111-15-9	2-Ethoxyethanol acetate	3
111-44-4	Bis(2-chloroethyl)ether	1,5
111-46-6	Diethylene glycol	3
111-70-6	1-Heptanol	3
111-90-0	Diethylene glycol monoethyl ether	3
111-91-1	Bis(2-chloroethoxy)methane	1,5
112-31-2	Decanal	3
112-34-5	Butoxyethoxyethanol	1,5
115-07-1	1-Propene	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
115-29-7	Endosulfan	1,3
115-86-6	Triphenyl phosphate	1,5
116-06-3	Aldicarb; <u>Aldicarb</u> and Methomyl	1,5
117-80-6	2,3-Dichloro-1,4-napthoquinone	3
117-81-7	Bis(2-ethylhexyl)phthalate	1,5
117-84-0	Di-n-octyl phthalate	1,5
118-69-4	2,6-Dichlorotoluene	1,5
118-74-1	Hexachlorobenzene	1,5
118-75-2	Chloranil	1,5
118-90-1	2-Methylbenzoic acid	3
118-96-7	2,4,6-Trinitrotoluene	1,5
119-90-4	3,3'-Dimethoxybenzidine	3
119-93-7	3,3'-Dimethylbenzidine	1,5
120-12-7	Anthracene	1,5
120-58-1	Isosafrole	3
120-61-6	Dimethylterephthalate	3
120-82-1	Trichlorobenzenes (1,2,4-)	1,5
120-83-2	2,4-Dichlorophenol	1,5
120-92-3	Cyclopentanone	3
121-14-2	2,4-Dinitrotoluene	1,5
121-44-8	Triethylamine	3
121-69-7	N,N-Dimethylaniline	1,5
121-73-3	3-Chloronitrobenzene	1,5
121-75-5	Malathion	1,5
121-82-4	Cyclotrimethylenetrinitramine	3
122-09-8	alpha, alpha-Dimethyl phenethylamine	1,5
122-34-9	Simazine	1,5
122-39-4	Diphenylamine	1,5
122-42-9	Propham	1,5

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CAS Number	Entry	Table
122-66-7	Diphenylhydrazines (1,2-); 1,2-Diphenylhydrazine	1,5
123-31-9	Hydroquinone	1,5
123-33-1	Maleic hydrazide	3
123-73-9	trans-2-Butenal	1,5
123-91-1	1,4-Dioxane	3
124-09-4	Hexamethylene diamine	3
124-19-6	Nonanal	3
124-40-3	Dimethylamine	3
124-48-1	Dibromochloromethane	1,5
126-39-6	2-Methylethyl-1,3-dioxolane	1,5
126-68-1	o,o,o-Triethylphosphorothioate	3
126-75-0	Demeton (-S)	1
126-98-7	Methacrylonitrile	1,5
126-99-8	Chloroprene	1,5
127-18-4	Tetrachloroethene	1,5
129-00-0	Pyrene	1,5
130-15-4	1,4-Naphthoquinone	3
131-11-3	Dimethyl phthalate	1,5
132-64-9	Dibenzofuran	3
133-06-2	Captan	1,5
133-07-3	Folpet	1,5
134-32-7	1-Naphthylamine	3
135-98-8	sec-Butylbenzene	1,5
136-25-4	Pentamate	3
137-26-8	Thiram	1,5
137-30-4	Ziram	1,5
138-86-3	1-Methyl-4-(1-methylethenyl)cyclohexene	3
139-40-2	Propazine	1,5
140-57-8	Aramite	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
140-88-5	Ethyl acrylate	3
141-05-9	Diethyl maleate	3
141-78-6	Ethyl acetate	3
142-28-9	1,3-Dichloropropane	1,5
142-59-6	Nabam	1,5
142-82-5	n-Heptane	3
143-07-7	Dodecanoic acid	3
143-08-8	1-Nonanol	3
143-50-0	Kepone	1,5
145-73-3	Endothall	1,5
148-18-5	Sodium diethyldithiocarbamate	3
149-30-4	Mercaptobenzothiazole	1,5
152-16-9	Octamethylpyrophosphoramine	3
156-59-2	cis-1,2-Dichloroethene	1,5
156-60-5	trans-1,2-Dichloroethene	1,5
191-24-2	Benzo(g,h,i)perylene	3
192-97-2	Benzo(e)pyrene	3
193-39-5	Indeno (1,2,3-cd)pyrene	1,5
205-99-2	Benzo(b)fluoranthene	1,5
206-44-0	Fluoranthene	1,5
207-08-9	Benzo(k)fluoranthene	1,5
208-96-8	Acenaphthylene	3
218-01-9	Chrysene	1,5
271-61-4	Benzisothiazole	1,5
297-97-2	o,o-Diethyl-o-2-pyrazinyl phosphorothioate	3
298-00-0	Parathion & <u>Methyl parathion</u>	1,5
298-02-2	<u>Phorate</u> & Disulfoton	1,5
298-03-3	Demeton (<u>-o</u>)	1
298-04-4	Phorate & <u>Disulfoton</u>	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
299-84-3	Ronnel	3
302-01-2	Hydrazine	1,3
309-00-2	Aldrin; Aldrin & Dieldrin	1,5;1
314-40-9	Bromacil	1,5
319-84-6	alpha-Hexachlorocyclohexane	1,5
319-85-7	beta-Hexachlorocyclohexane	1,5
319-86-8	delta-Hexachlorocyclohexane	1,5
328-84-7	3,4-Dichlorobenzotrifluoride	1,5
330-55-2	Linuron	3
333-41-5	Diazinon	1,5
354-58-5	1,1,1-Trichloro-2,2,2-trifluoroethane	1,5
460-35-5	3-Chloro-1,1,1-trifluoropropane	1,5
462-08-8	Aminopyridines (3-)	1,5
465-73-6	Isodrin	1,5
479-18-5	Dyphylline	1,5
488-23-3	1,2,3,4-Tetramethylbenzene	1,5
501-52-0	Benzenepropanoic acid	3
504-24-5	Aminopyridines (4-)	1,5
504-29-0	Aminopyridines (2-)	1,5
506-68-3	Cyanogen bromide	1,5
506-77-4	Cyanogen chloride	1,5
510-15-6	Chlorobenzilate	3
512-56-1	Trimethyl phosphate	3
515-30-0	alpha-Hydroxy-alpha-methylbenzeneacetic acid	3
526-73-8	1,2,3-Trimethylbenzene	1,5
527-53-7	1,2,3,5-Tetramethylbenzene	1,5
527-84-4	2-Isopropyltoluene	1,5
529-20-4	2-Methylbenzaldehyde	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
530-50-7	Diphenylhydrazines (1,1-); 1,1-Diphenylhydrazine	1,5
531-82-8	Furium	3
535-77-3	3-Isopropyltoluene	1,5
538-39-6	4,4'-Dimethylbibenzyl	1,5
540-73-8	1,2-Dimethylhydrazine	3
541-73-1	Dichlorobenzenes (1,3-)	1,5
542-75-6	1,3-Dichloropropene (sum of cis- and trans-)	1,5
542-88-1	Bis(chloromethyl)ether	1,5
543-49-7	2-Heptanol	3
563-12-2	Ethion	3
563-58-6	1,1-Dichloropropene	1,5
577-55-9	1,2-Diisopropylbenzene	1,5
583-53-9	1,2-Dibromobenzene	1,5
584-84-9	Toluene diisocyanate	3
589-18-4	4-Methylbenzenemethanol	3
589-38-8	3-Hexanone	3
589-55-9	4-Heptanol	3
589-82-2	3-Heptanol	3
589-93-5	2,5-Lutidine	3
591-78-6	2-Hexanone	1,5
594-18-3	Dibromodichloromethane	1,5
594-20-7	2,2-Dichloropropane	1,5
597-64-8	Tetraethyl tin	3
598-77-6	1,1,2-Trichloropropane	1,5
602-01-7	2,3-Dinitrotoluene	1,5
602-29-9	2,3,4-Trinitrotoluene	1,5
603-15-6	3,4,5-Trinitrotoluene	1,5
606-20-2	2,6-Dinitrotoluene	1,5
608-73-1	See 58-89-9; 319-84-6; 319-85-7; 319-86-8; and 6108-10-7	

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
608-93-5	Pentachlorobenzene	1,5
610-25-3	2,4,5-Trinitrotoluene	1,5
610-39-9	3,4-Dinitrotoluene	1,5
611-15-4	2-Methylstyrene	1,5
613-12-7	2-Methylanthracene	3
615-54-3	1,2,4-Tribromobenzene	1,5
617-84-4	Diethyl formamide	3
617-94-7	Dimethylphenylcarbinol	3
618-85-9	3,5-Dinitrotoluene	1,5
619-15-8	2,5-Dinitrotoluene	1,5
620-23-5	3-Methylbenzaldehyde	3
621-64-7	N-Nitrosodipropylamine	3
622-97-9	4-Methylstyrene	1,5
625-86-5	2,5-Dimethylfuran	3
627-26-9	trans-2-Butenenitrile	1,5
630-20-6	1,1,1,2-Tetrachloroethane	1,5
634-66-2	Tetrachlorobenzenes (1,2,3,4-)	1,5
634-90-2	Tetrachlorobenzenes (1,2,3,5-)	1,5
634-93-5	2,4,6-Trichloroaniline	1,5
637-50-3	3-Phenyl-1-propene	1,5
643-79-8	1,2-Benzenedicarboxaldehyde	3
683-18-1	Dibutyltin chloride	3
684-93-5	N-Nitroso-N-methyl urea	3
709-98-8	Propanil	1,5
759-96-4	Ethyl di-n-propylthiocarbamate (EPTC)	3
764-41-0	See 1476-11-5 and 110-57-6	
765-34-4	Glycidaldehyde	3
766-90-5	cis-1-Phenyl-1-propene	1,5
767-58-8	2,3-Dihydro-1-methyl-1H-indene	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
823-40-5	Toluene-2,6-diamine	1,5
834-12-8	Ametryn	1,5
873-66-5	trans-1-Phenyl-1-propene	1,5
873-94-9	3,3,5-Trimethylcyclohexanone	3
923-02-4	Methylolmethacrylamide	3
924-16-3	N-Nitrosodi-N-butylamine	3
930-55-2	N-Nitrosopyrrolidine	3
957-51-7	Diphenamid	1,5
959-98-8	Endosulfan I	3
1024-57-3	Heptachlor epoxide	1,5
1031-07-8	Endosulfan sulfate	3
1071-83-6	Glyphosate	1,5
1114-71-2	Pebulate	3
1122-60-7	Nitrocyclohexane	3
1163-19-5	Bis(pentabromophenyl)ether	3
1190-76-7	cis-2-Butenenitrile	1,5
1321-12-6	See 88-72-2; 99-08-1 and 99-99-0	
1330-20-7	See 95-47-6; 106-42-3 and 108-38-3	
1462-84-6	2,3,6-Trimethylpyridine	1,5
1476-11-5	cis-1,4-Dichloro-2-butene	1,5
1563-66-2	Carbofuran	1,5
1582-09-8	Trifluralin	1,5
1589-49-7	Propylene glycol monomethyl ether	3
1610-18-0	Prometon	1,5
1634-04-4	Methyl tert-butyl ether	3
1646-87-3	Aldicarb sulfoxide	1,5
1646-88-4	Aldicarb sulfone	1,5
1702-17-6	Clopyralid	3
1807-55-2	4,4'-Methylene-bis-(N-methyl)aniline	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
1861-32-1	Dimethyl tetrachloroterephthalate	1,5
1861-40-1	Benefin	1,5
1863-63-4	Benzoic acid, ammonium salt	3
1875-92-9	Dimethylbenzylammonium chloride	3
1888-71-7	Hexachloropropene	1,5
1897-45-6	Chlorothalonil	1,5
1912-24-9	Atrazine	1,5
1918-00-9	Dicamba	1,5
1918-16-7	Propachlor	1,5
1929-77-7	Vernolate	3
2008-41-5	Butylate	1,5
2014-83-7	alpha, 2,6-Trichlorotoluene	1,5
2077-46-5	2,3,6-Trichlorotoluene	1,5
2104-96-3	Bromophos	3
2136-79-0	Tetrachloroterephthalic acid	1,5
2164-17-2	Fluometuron	1,5
2207-04-7	trans-1,4-Dimethyl cyclohexane	3
2212-67-1	Molinate	3
2303-16-4	Diallate	3
2303-17-5	Triallate	3
2385-85-5	Mirex	1,5
2425-06-1	Captafol	3
2439-10-3	<u>Dodecylguanidine acetate</u> and Dodecyguanidine hydrochloride	1,5
2641-56-7	Diethyltin dycaprylate	3
2764-72-9	Diquat	1,5
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	1,5
2835-95-2	Aminocresols (<u>5-Amino-ortho-cresol</u>)	1,5
2835-99-6	Aminocresols (<u>4-Amino-meta-cresol</u>)	1,5
2921-88-2	Chlorpyrifos	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
3252-43-5	2,2-Dibromo-3-nitrilopropionamide & <u>Dibromoacetonitrile</u> ; Dibromoacetonitrile	1,3
3558-60-9	(2-Methoxyethyl)benzene	1,5
3689-24-5	Tetraethyl dithiopyrophosphate	3
4013-34-7	(1-Methoxyethyl)benzene	1,5
4170-30-3	See 123-73-9 and 15798-64-8	
4376-18-5	Methylphthalate	3
4685-14-7	Paraquat	1,5
4726-14-1	Nitralin	1,5
4786-20-3	See 1190-76-7 and 627-26-9	
4957-14-6	4,4'-Dimethyldiphenylmethane	1,5
5131-66-8	Butoxypropanol	1,5
5197-80-8	Dimethylethylbenzylammonium chloride	3
5216-25-1	alpha, alpha, alpha, 4-Tetrachlorotoluene	1,5
5234-68-4	Carboxin	1,5
5902-51-2	Terbacil	1,5
6108-10-7	epsilon-Hexachlorocyclohexane	1,5
6317-18-6	Methylene bithiocyanate	1,5
6639-30-1	2,4,5-Trichlorotoluene	1,5
7005-72-3	4-Chlorophenyl phenyl ether	3
7359-72-0	2,3,4-Trichlorotoluene	1,5
7421-93-4	Endrin aldehyde	1,5
7486-38-6	Sodium adipate, disodium salt	3
7664-41-7	<u>Ammonia</u> and Ammonium	1,5
7783-06-4	Hydrogen sulfide	1,5
8001-35-2	Toxaphene	1,5
8018-01-7	Mancozeb	1,5
8065-48-3	Demeton	1,3
9003-27-4	Polybutene(1-propene, 2-methyl homopolymer)	3
10061-01-5	see 542-75-6	

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
10061-02-6	see 542-75-6	
10222-01-2	<u>2,2-Dibromo-3-nitrilopropionamide</u> & Dibromoacetonitrile	1,5
10595-95-6	N-Nitrosomethylethylamine	3
12002-48-1	Trichlorobenzenes	1,5
12122-67-7	Zineb	1,5
12408-10-5	Tetrachlorobenzenes	1,5
12427-38-2	Maneb	1,5
13071-79-9	Terbufos	1,5
13116-57-9	cis-1,2,3-Trichloropropene	1,5
13116-58-0	trans-1,2,3-Trichloropropene	1,5
13560-89-9	Dechlorane Plus	1,5
13590-97-1	Dodecylguanidine acetate and <u>Dodecylguanidine hydrochloride</u>	1,5
13940-94-8	alpha, alpha, 4-Trichlorotoluene	1,5
14484-64-1	Ferbam	1,5
14838-15-4	Phenylpropanolamine	1,5
15798-64-8	cis-2-Butenal	1,5
15972-60-8	Alachlor	1,5
16655-82-6	3-Hydroxycarbofuran	3
16752-77-5	Aldicarb & <u>Methomyl</u>	1,5
17059-48-2	2,3-Dihydro-1,6-dimethyl-1H-indene	3
18292-97-2	2,3,6-Trinitrotoluene	1,5
19089-47-5	Propylene glycol monoethyl ether	3
19398-61-9	2,5-Dichlorotoluene	1,5
21087-64-9	Metribuzin	1,5
21564-17-0	2-(Thiocyanomethylthio)benzothiazole	3
21725-46-2	Cyanazine	3
23135-22-0	Oxamyl	1,5
23184-66-9	Butachlor	1,5
23749-65-7	2,4,6-Trichlorotoluene	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
23950-58-5	Pronamide	3
25056-70-6	Hexanate	3
25136-55-4	Dimethyldioxane	3
25154-54-5*	See 99-65-0	
25167-93-5	See 88-73-3; 100-00-5 and 121-73-3	
25168-05-2	See 95-49-8; 106-43-4 and 108-41-8	
25186-47-4	3,5-Dichlorotoluene	1,5
25265-76-3	See 95-54-5; 106-50-3 and 108-45-2	
25321-09-9	See 99-62-7; 100-18-5 and 577-55-9	
25321-14-6	See 121-14-2; 602-01-7; 606-20-2; 610-39-9; 618-85-9 and 619-15-8	
25321-22-6	See 95-50-1; 106-46-7 and 541-73-1	
25551-13-7	See 95-63-6; 108-67-8 and 526-73-8	
25973-55-1	2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole	1,5
26399-36-0	Profluralin	3
26445-05-6	Aminopyridines	1,5
26523-64-8	See 76-13-1 and 354-58-5	
27134-26-5	See 95-51-2; 106-47-8 and 108-42-9	
29082-74-4	Octachlorostyrene	1,5
29091-21-2	Prodiamine	3
29385-43-1	Tolyltriazole	1,5
29611-84-5*	See 108-75-8 and 1462-84-6	
29761-21-5	Isodecyl diphenyl phosphate	1,3
29797-40-8	See 95-73-8; 95-75-0; 118-69-4; 19398-61-9; 25186-47-4 and 32768-54-0	
30560-19-1	Acephate	3
31600-69-8	4-(1-Methylethoxy)-1-butanol	1,5
32768-54-0	2,3-Dichlorotoluene	1,5
33213-65-9	Endosulfan II	3
33820-53-0	Isopropalin	1,5
34014-18-1	Tebuthiuron	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
35448-14-7	Oxalic acid, benzyl ester	3
37299-86-8	Rhodamine WT	3
39196-18-4	Thiofanox	3
40487-42-1	Pendimethalin	1,5
51218-45-2	Metolachlor	3
51235-04-2	Hexazinone	1,5
53494-70-5	Endrin ketone	1,5
56961-86-5	2,3,5-Trichlorotoluene	1,5
68391-01-5	Alkyl dimethyl benzyl ammonium chloride	1,5
95266-40-3	Cimectacarb	3
<p>* This non-individual CAS number also refers to one or more individual substances that are not specifically listed in the table. These individual substances, however, may be encompassed by a group entry in Table 1 (for example, Principal Organic Comtaminant or Phenolic Compounds). Refer to the text of Part I of this document for an explanation of group entries.</p>		

s/s (6/17/98)
 N.G. Kaul, P.E.
 Director
 Division of Water

ERRATA SHEET FOR JUNE 1998 EDITION OF THE DIVISION OF WATER TECHNICAL
AND OPERATIONAL GUIDANCE SERIES (TOGS) NUMBER 1.1.1

January 1999

The H(W) Type guidance value for Class A, A-S, AA and AA-S waters for the substance 1,1-dichloroethene (CAS No. 75-35-4) in Table 1 of the June 1998 edition of TOGS 1.1.1 is incorrectly listed as 0.7 ug/L. The CORRECT H(W) Type guidance value for these surface water classes is 0.07 ug/L.

**APRIL 2000 ADDENDUM TO JUNE 1998 DIVISION OF WATER TECHNICAL AND OPERATIONAL
GUIDANCE SERIES (TOGS) NO. 1.1.1. (Originator - Scott Stoner)**


**TABLE 1
NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
April 2000**

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Acetaldehyde (75-07-0)	A, A-S, AA, AA-S GA		8 8	H(WS) H(WS)	A A
n-Butanol (71-36-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Carbon disulfide (75-15-0)	A, A-S, AA, AA-S GA		60 60	H(WS) H(WS)	B B
Formaldehyde (50-00-0)	A, A-S, AA, AA-S GA		8 8	H(WS) H(WS)	A A
Methyl tert-butyl ether (MTBE) (1634-04-4)	A, A-S, AA, AA-S GA		10 10	H(WS) H(WS)	A A

**TABLE 5
NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)
April 2000**

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Acetaldehyde (75-07-0)	8	B
n-Butanol (71-36-3)	50	B
Carbon disulfide (75-15-0)	60	B
Formaldehyde (50-00-0)	8	B
Methyl tert-butyl ether (MTBE) (1634-04-4)	10	B

In addition, n-butanol (listed synonymously as 1-butanol), carbon disulfide, formaldehyde and methyl tert-butyl ether are deleted from Table 3 of TOGS 1.1.1.


 NG. Kaul, P.E.
 Director
 Division of Water

JUNE 2004 ADDENDUM TO JUNE 1998 DIVISION OF WATER TECHNICAL AND OPERATIONAL
GUIDANCE SERIES (TOGS) NO. 1.1.1.

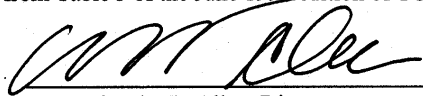
(Originator- Scott Stoner)

TABLE 1 NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES					
SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Metolachlor ESA (171118-09-5)	A, A-S, AA, AA-S GA		50	H(WS)	Z
			50	H(WS)	Z
Metolachlor OA (152019-73-3)	A, A-S, AA, AA-S GA		50	H(WS)	Z
			50	H(WS)	Z
Propylene glycol (57-55-6)	A, A-S, AA, AA-S GA		*	H(WS)	G
			*	H(WS)	G

Remark *Guidance value is 1,000 ug/L except that a guidance value of 300 ug/L applies at the point of intake of a public or private water supply that uses ozonation in its treatment process.

TABLE 5 NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)		
SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Metolachlor ESA (171118-09-5)	50	B
Metolachlor OA (152019-73-3)	50	B
Propylene glycol (57-55-6)	1,000	B

In addition, metolachlor and propylene glycol are deleted from Table 3 of the June 1998 edition of TOGS 1.1.1.


Sandra L. Allen, Director
Division of Water

APPENDIX E

Soil Boring Logs



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC	Boring ID: SB-RI1
Site Name: 255 Randolph Street, Brooklyn, New York	Boring Location: See Site Sketch
Site Location: 255 Randolph Street, Brooklyn, New York	Surface Elev. (ft.): 17 (est.)
LEA Job #: 16-203.1	DTW (ft): 13 (est.)
Field Geologist: Albert Kim	Drill Type: 6712DT
Driller: Steve Bitetto	Sample Type: Split:
Weather Cond.: Cloudy, Humid	Grab:
Temp: 90°F	Core: X

DEPTH	Boring Profile*	DESCRIPTION			SOIL TYPE CODES	
		COLOR	PID	MATERIAL DESCRIPTION		
0	Other	White	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	Other	Black	15,000	Suspected fill material	Poorly graded gravels or gravel/sand mix (GP)	
2					Well graded sands, gravelly sands, no fines (SW)	
3					Poorly graded sands, gravelly sands, no fines (SP)	
4	SP	Brown	15,000	Poorly graded silty sand	Silty sands, sand silt mixtures (SM)	
5	Other	Black	15,000	Suspected fill material	Inorganic silts, fine sand, silty-clayey fine sands (ML)	
6					Inorganic clays, gravelly/sandy clays, silty clays (CL)	
7					Organic silts, organic silty clays of low plasticity (OL)	
8	GW	Brown	15,000	Well graded gravelly sand	Organic clays of med. to high plasticity, organic silts (OH)	
9					Peat and other highly organic soils (PT)	
10					Bedrock etc. (BD)	
11	GP	Brown	15,000	Poorly graded gravelly sand, groundwater at ~11 ft	Other (fill, etc)	
12						
13						
14						
15						

COMMENTS: Groundwater encountered at approximately 11 feet, high PID readings throughout

Sample Intervals : 0-2' and 10-12' intervals selected for analysis

Boring ID: SB-RI1



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI2
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)
LEA Job #: 16-203.1		DTW (ft): 13 (est.)
Field Geologist: Albert Kim		Drill Type: 6712DT
Driller: Steve Bitetto		Sample Type:
Weather Cond.: Cloudy, Humid		Split:
Temp: 90°F		Grab:
		Core: X

DEPTH	Boring Profile*	COLOR	PID	DESCRIPTION	SOIL TYPE CODES	
				MATERIAL DESCRIPTION		
0	Other	Orge	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	SP	Dark Brown	15,000	Poorly graded silty sand	Poorly graded gravels or gravel/sand mix (GP)	
2						
3	Other	Black	15,000	Asphalt looking material, suspected fill	Well graded sands, gravelly	
4	SW	Orange	15,000	Well graded sand	sands, no fines (SW)	
5	SM	Brown	15,000	Silty sand	Poorly graded sands,	
6	Other	Black	15,000	Rocky layer, suspected fill	gravelly sands, no fines (SP)	
7	SM	Brown	15,000	Silty sand	Silty sands, sand silt mixtures (SM)	
8	SM	Brown Orange	15,000	Silty sand	Inorganic silts, fine sand,	
9						
10	SM	Tan Brown	15,000	Silty sand, groundwater at ~13 feet	silty-clayey fine sands (ML)	
11						
12						
13						
14						
15					Organic silts, organic silty clays of low plasticity (OL)	
					Organic clays of med. to high plasticity, organic silts (OH)	
					Peat and other highly organic soils (PT)	
					Bedrock etc. (BD)	
					Other (fill, etc)	

COMMENTS:	Groundwater encountered at approximately 13 feet, high PID readings throughout
Sample Intervals : 0-2' and 11-13' intervals selected for analysis	
Boring ID: SB-RI2	



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI3	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

DEPTH	Boring Profile*	COLOR	PID	DESCRIPTION	SOIL TYPE CODES	
				MATERIAL DESCRIPTION		
0	Other	White	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	SP	Orange	15,000	Poorly graded silty sand	Poorly graded gravels or gravel/sand mix (GP)	
2					Well graded sands, gravelly sands, no fines (SW)	
3					Poorly graded sands, gravelly sands, no fines (SP)	
4					Silty sands, sand silt mixtures (SM)	
5					Inorganic silts, fine sand, silty-clayey fine sands (ML)	
6	Other	Black	15,000	Asphalt looking material, suspected fill	Inorganic clays, gravelly/sandy clays, silty clays (CL)	
7					Organic silts, organic silty clays of low plasticity (OL)	
8					Organic clays of med. to high plasticity, organic silts (OH)	
9					Peat and other highly organic soils (PT)	
10					Bedrock etc. (BD)	
11	SP	Brown	15,000	Poorly graded silty sand, groundwater at ~13 feet	Other (fill, etc)	
12						
13						
14						
15						

COMMENTS: Groundwater encountered at approximately 13 feet, high PID readings throughout	
Sample Intervals : 0-2' and 11-13' intervals selected for analysis	
Boring ID: SB-RI3	



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI4	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.):17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	
Weather Cond.: Cloudy, Humid		Grab:	
Temp: 90°F		Core: X	

COMMENTS: <u>Groundwater encountered at approximately 13 feet</u>	
Sample Intervals : 0-2' and 11-13' intervals selected for analysis	
	Boring ID: SB-RI4



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI5	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

COMMENTS: Groundwater encountered at approximately 12 feet	
Sample Intervals : 0-2' and 10-12' intervals selected for analysis	
	Boring ID: SB-RI5



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI6	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.):17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

COMMENTS: <u>Groundwater encountered at approximately 12 feet, high PID readings below 9 feet</u>	
Sample Intervals : 0-2' and 9-11' intervals selected for analysis	
	Boring ID: SB-RI6

APPENDIX F

Water Quality Data

Groundwater Monitoring Well Depths and Chemistry

255 Randolph Street, Brooklyn, New York

18-Jul-16

Monitoring Well #	<i>MW-1</i>			<i>MW-2</i>			<i>MW-3</i>			<i>MW-4</i>		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	13.83			12.8			13.79			14.31		
Depth To Bottom	20			20			20			20		
Total Water	6.17			7.2			6.21			5.69		
Temperature (°C)	19.64	17.39	17.07	17.5	17.21	12	12.2	12.2	12.2	10.7	10.8	10.7
Dissolved Oxygen (mg/L)	3.87	3.98	4.09	4.75	4.69	2.97	2.8	2.69	2.43	4.4	3.5	2.89
Conductivity (S/cm)	1052.12	1075.18	1069.07	925.49	950.54	92.5	305.2	304.6	304.6	122.6	134.3	142.4
pH	7.27	6.99	6.93	7	6.95	6.12	5.64	5.61	5.61	7.52	8.67	9.4
Oxidation-Reducing Potential	172.72	153.07	142.87	331.96	348.81	45.5	74.9	74.8	74.6	-72.3	-73.9	-74.4
Turbidity	28.9	7.34	3.71	37.3	12.4	12.6	9.39	8.87	9.39	15	10	9.21

Groundwater Monitoring Well Depths and Chemistry

80 Banks Avenue, Rockville Center, New York

27-Jan-16

Monitoring Well #	2010-3A			2010-3B			2010-3C			2010-3D		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	5.9			5.9			6.25			5.8		
Depth To Bottom	100			70			50			15		
Total Water	94.1			64.1			43.75			9.2		
Temperature (°C)	9.7	10.4	11.8	12.7	12.4	12.6	12.5	12.4	12.3	12.8	12.8	12.7
Dissolved Oxygen (mg/L)	3.6	3.03	4.78	1.16	1.73	1.13	2.53	1.73	1.29	6.35	2.13	1.31
Conductivity (S/cm)	160	168.3	5.2	194.7	206.9	197.3	210	206.9	204.7	907	1398	1170
pH	6.69	6.06	7.05	6.98	5.71	6.87	5.53	5.71	5.84	6.38	7.01	7.38
Oxidation-Reducing Potential	-150	114.6	-57.5	123.3	82.4	111.8	77.8	82.4	86.6	31.2	20.4	11.8
Turbidity	error	error	error	43.1	7.16	38.8	6.5	7.16	7.07	1.98	2.07	1.71

Dup

Monitoring Well #	2013-4A			2013-4B			2013-4C			2010-4D		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	4.63			5.37			5.4			8.14		
Depth To Bottom	100			70			50			15		
Total Water	95.37			64.63			44.6			6.86		
Temperature (°C)	13.4	13.5	13.7	13.7	12.7	13.3	13.6	13.6	13.7	13.2	13.2	13.2
Dissolved Oxygen (mg/L)	5.01	2.2	1.97	9.98	6.23	4.02	2.6	1.14	2.84	2.29	1.12	1.16
Conductivity (S/cm)	78.8	79.6	80.1	127.5	1125	127.9	316.4	340.7	12.6	521	554	584
pH	6.71	6.62	6.48	6.13	5.82	5.91	5.54	5.69	5.88	7.93	7.89	7.97
Oxidation-Reducing Potential	189.3	13.2	32.2	13	28.6	20.3	20.7	20.2	12.5	-51.3	-43.2	-32.3
Turbidity	20	13	9.88	19.6	22.2	45.5	56.8	46.3	32.8	13.4	17.7	46.3

Calibration Verification	Standard 1	Standard 2	Standard 3	Standard 4
Standard Value				
Field Value				

APPENDIX G

Data Usability Summary Reports and Data Validator Qualifications

**Data Usability Summary Reports Are
Not Complete as of Time of Report**

JUDY V. HARRY
P. O. Box 208
120 Cobble Creek Rd.
North Creek, NY 12853

Occupation: Data Validator/Environmental Technical Consultant

Years Experience: 40

Education: B.S., Chemistry, Magna cum laude, 1976, Phi Beta Kappa

Certifications: New York State Woman-Owned Business Enterprise (WBE)

Relevant Work History:

Data Validation Services: September 1989 - present

Sole proprietor of Data Validation Services, a woman owned small business, CCR registered, certified by ORCA, providing consultation/validation services to regulatory and commercial clients.

These services include the review of analytical laboratory data for compliance with respect to specific protocols, accuracy and defensibility of data, verification of reported values, and evaluation of quality parameters for analytical usability of results. Approved by USEPA, NYSDEC, NJDEP, and NYCDEP as a data validator for projects, including USEPA Superfund, Brownfield, and lead sites, and those contracted through the NYSDEC Division of Hazardous Waste Remediation, Division of Solid Waste, and Division of Water Quality.

Performed validation for compliance with laboratory analytical protocols including USEPA OLM, USEPA OLC, USEPA ILM, USEPA DFLM, USEPA SOW3/90, USEPA SOW 7/87 CLP, USEPA SOW 2/88 CLP, USEPA SW846, RCRA, AFCEE, NYS 6 NYCRR Part 360, 40 CFR, Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, including TO-15, 1989/1991/1995/2000/2005 NYSDEC ASPs, and 1987 NYSDEC CLP.

Performed validation according to the USEPA National and Regional SOPs and Functional Guidelines, AFCEE requirements, NYSDEC Validation Scope of Work, and NJDEP Division of Hazardous Site Mitigation/Publicly Funded Site Remediation SOPs.

Performed validation for USEPA Superfund Sites including Salem Acres, York Oil, Port Washington L-4 Landfill, Bridgeport Rental and Oil Services, GE-MRFA, MMR/ OTIS AFB, LCP, and Peter Cooper site; and for USEPA lead sites including SJ&J Piconne, Maska, Bowe System, Jones Sanitation, and Syossett Landfill, involving CLP, RAS, and SAS protocols.

Contracted for NYSDEC Superfund Standby Contracts with LMS Engineers, CDM, Malcolm-Pirnie, Ecology & Environment, HDR, Shaw Environmental, and EC Jordan, involving samples collected at NYS Superfund Sites and analyzed under the NYSDEC ASP.

Performed validation services for NYSDEC Phase II remedial investigations, RI/FS projects, Brownfield sites, and PRP over-site projects for hazardous waste sites.

Performed validation services for clients conducting RI/FS activities involving samples of many matrices, including waste, air, sludges, leachates, solids/sediments, aqueous, and biota.

Clients have included AECOM, ARCADIS, Barton & Loguidice, Benchmark Engineering, Bergmann Associates, Blasland, Bouck & Lee, Brown and Caldwell, CDM Smith, CB&I Shaw Environmental, C&S Consulting Engineers, Chazen Companies, Clough Harbour & Associates, Columbia Analytical Services, C.T. Male, Dames & Moore, Day Engineering, EA Engineering, EcolSciences, Ecology & Environment, Ecosystems, EC Jordan, Environmental Chemical Corporation, EHRT, ENSR Consulting, ELM, ERM-Northeast, Fagan Engineers, Fanning Phillips & Molnar, FluorDaniel GTI, Frontier, Foster Wheeler Environmental Corp, Frontier Technical, Galson Consultants, GE&R, Geomatrix Consultants, GZA Environmental, Handex of N, H2M Group, HDR, HRP, IT Corp, Jacques Whitford, JTM Associates, Labella Associates, Langan Engineers, Leader Environmental, Lockwood, Kessler & Bartlett, LMS Engineers, Malcolm-Pirnie, Metcalf & Eddy, NWECC, O'Brien & Gere Engineers, Pace, Parsons Engineering-Science, Plumley Engineering, Prescott Environmental, P. W. Grosser, Rizzo Associates, Roux Associates, Sear Brown Group, SECOR, Shaw Environmental, Stantec, ThermoRemediation Inc., TRC Environmental, Turnkey Environmental Restoration, TVGA Engineering, URS Consultants, Wehran Emcon, Weston, YEC, and private firms.

Provided consultation services to laboratories regarding analytical procedures and protocol interpretation, and to law firms for litigation support.

Provided services to firms involving audits of environmental analytical laboratories to determine analytical capability, particularly for compliance with NYSDEC ASP and AFCEE requirements.

Guest speaker on a panel discussing Data Review/Compliance and Usability, for an analysis workshop for the New York Association of Approved Environmental Laboratories, 1993.

Adirondack Environmental Services: June 1987 - August 1989

Senior mass spectroscopist for AES. Responsible for GC/MS analyses of environmental samples by USEPA and NYSDEC protocols, development of the GC/MS laboratory, initiating the instrumental and computer operations from the point of installation, and for implementing the procedures and methodologies for Contract Laboratory Protocol.

CompuChem Laboratories: May 1982 - January 1987

Managed a GC/MS production laboratory; developed, implemented, and supervised QA/QC criteria at three different levels of review; and was responsible for the development and production of the analysis of environmental and clinical samples. Directed a staff of 23 technical and clerical personnel, and managed the extraction and GC/MS labs and data review operations.

Research Triangle Institute: December 1979 - May 1982

Worked as an analytical research chemist responsible for development of analytical methods for the EPA Federal Register at RTI. This involved analysis of biological and environmental samples for priority pollutants, primarily relating to wastewaters and to human sampling studies. Method development included modification and interfacing of the initially developed Tekmar volatile purge apparatus to GC/MS, development and refinement of methods for entrapment and concentration of the air medium for subsequent volatile analysis, and the analysis and resolution/identification of individual PCB congeners within Aroclor mixtures by capillary column and mass spectra.

Guardsman Chemical Company: February 1977 - November 1979

Performed all quality control functions for the manufacturing plant. Performed research and development on coatings and dyes.

Almay Cosmetics: May 1976 - December 1976

Product evaluation chemist. Responsible for analytical QC of manufactured products.

Publication

Pellizzari, E.D., Moseley, M.A., Cooper, S.D., Harry, J.V., Demian, B., & Mullin, M. D. (1985). Recent Advances in the Analysis of Polychlorinated Biphenyls in Environmental and Biological Media. *Journal of Chromatography*, 334(3) 277-314.

APPENDIX H

Personnel Qualifications

SCOTT A. YANUCK, C.E.I., C.E.S.

EDUCATION: STATE UNIVERSITY OF NEW YORK AT STONY BROOK

B.A., Earth and Space Sciences, December, 1987, Minor in Technology and Society.

M.SSc., Hydrogeology, May, 1993. Course work included classes in Geophysics, Chemical Hydrogeology, Organic Contaminant Hydrology, and Computer Modeling.

EXPERIENCE:

PRINCIPAL, MANAGING HYDROGEOLOGIST

LAUREL Environmental Associates, Ltd.

- ☐ Supervise all technical and financial operations of environmental consulting firm.
- ☐ Completed OSHA 40 Hour HAZWOPER Supervisors course, 8 Hour Refresher Courses.
- ☐ Geoprobe Systems Training on Direct Push Techniques including well installation and pump tests
- ☐ Completed ASTM Environmental Site Assessment training course for professionals.
- ☐ Completed NJDEPE UST Certification Program.
- ☐ Completed Mold Remediation Manage Course based on NYC DOH Guidelines
- ☐ NYSDOL Asbestos Inspector, #AH97-08528
- ☐ GSSI Certification in Ground Penetrating Radar

September, 1992-present

PROJECT MANAGER, GROUP SUPERVISOR: ENVIRONMENTAL SERVICES

Richard D. Galli, P.E., P.C.

In charge of Environmental Services Group. Scope of work within group includes the following:

- ☐ Phase I Environmental Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ State Superfund RI/FS.
- ☐ Indoor Air Quality (IAQ) studies.

In addition to performing any of the above-mentioned work, personally responsible for project management, including project setup, project review and quality control/quality assurance of proposals and reports generated by the environmental group.

PROJECT MANAGER, HYDROGEOLOGY

Richard D. Galli, P.E., P.C.

Performed all aspects of numerous Phase I Environmental Assessments.

Performed and supervised Phase II and Phase III investigations and remediation. Duties included proposal writing, historical investigations, soil and water sampling, supervision of well drilling teams, supervision of remediation work, supervision of underground storage tanks removals, groundwater studies, and report writing.

Knowledgeable in Ground Water Computer Modeling with *canned* programs as well as developing new programs. Worked to set up a GIS based system capable of mapping CERCLA and NPL site, NYSDEC Spills and Inactive Hazardous Waste Sites, etc., to aid in performing Audits.

Certified: OSHA Forty Hour HAZWOPER Course, NIOSH 582.

SCOTT A. YANUCK CONTINUED

TECHNICIAN, FIELD AND LABORATORY

Kemron Environmental Services, Inc.

Worked as an industrial hygienist, taking air and bulk samples, and performing Indoor Air Quality (IAQ) studies. As a Polarized Light Microscopist, analyzed bulk samples for asbestos. Analyzed samples from the *Gramercy Park steam pipe explosion* and was detailed to St. Croix for on-site sampling and analysis at the Hess oil refinery during the cleanup of *Hurricane Hugo*. Also worked as GC/MS and HPLC technician. June, 1989-July, 1990 full time, continuing part time to 1993.

CONSTRUCTION SUPERVISOR, DEVELOPER

SHY Building Corporation, Huntington, NY.

Managed land development and housing construction. Scheduling and supervision of all trades necessary. Duties included the following:

- ☐ Design of drainage structures
- ☐ Design of buildings/renovations
- ☐ Surveying in conjunction with road/drainage construction.
- ☐ Property acquisition.
- ☐ Submitted applications for subdivision, building permits, and sanitary/water permits to Town and County agencies.
- ☐ Supervision of UST installations.
- ☐ Geotechnical and environmental inspections of properties/building sites.
- ☐ Energy efficient building design and implementation.

AFFILIATIONS

Air & Waste Management Association

American Institute of Professional Geologists

American Society for Testing and Materials

Active Committee Member E-40, Subsurface Investigations

Active Committee Member E-50, Environmental Assessment

Active Committee Member E-50.1, Underground Storage Tanks

Environmental Assessment Association, Certified Environmental Inspector and Specialist, #12200.

Hazardous Materials Control Resources Institute

Huntington Chamber of Commerce

Huntington Historical Society

Long Island Association

Long Island Builders Institute

Long Island Geologists

National Fire Protection Association

National Ground Water Society

New York State Council of Professional Geologists

US Green Building Council

KENNETH P. WENZ, JR., C.P.G., L.E.P., P.G.

EDUCATION:

COLGATE UNIVERSITY, B.A., Geology, May 1983.

UNIVERSITY OF MASSACHUSETTS, AMHERST, M.S., Geology, December 1988.

LICENSES/REGISTRATIONS/CERTIFICATIONS:

CERTIFIED PROFESSIONAL GEOLOGIST, C.P.G. 8934

LICENSED ENVIRONMENTAL PROFESSIONAL (CONNECTICUT), L.E.P. 408

REGISTERED PROFESSIONAL GEOLOGIST (PENNSYLVANIA), P.G. PG-001273-G

OSHA HAZWOPER Certified

EXPERIENCE:

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

LAUREL Environmental Associates, Ltd.

Duties include the following:

- ☐ Supervise technical staff.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ State Superfund Site Investigation/Remediation Programs.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Injection Control Remediation and Closure.
- ☐ Vapor Intrusion Investigations.
- ☐ Project management.

May 2016 - present

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

Genesis Engineering and Redevelopment, Inc.

Duties included the following:

- ☐ Phase II Environmental Assessments.
- ☐ Contributing Source Investigations.
- ☐ Groundwater Contamination Studies.
- ☐ Hazardous Site Remediation.
- ☐ State Superfund Site Investigations.
- ☐ Soil Vapor/Indoor Air Quality studies.

April 2012 – May 2016

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

Holzmacher, McLendon & Murrell, P.C.

Duties included the following:

- ☐ Supervise technical staff.
- ☐ Project management.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ Federal Superfund Site Investigation/Remediation Programs.
- ☐ Landfill Post-Closure Monitoring Programs.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Injection Control Investigation, Remediation, and Closure.
- ☐ Spill Investigation and Remediation.

March 2007 – October 2011

KENNETH P. WENZ, JR. CONTINUED

SENIOR ASSOCIATE

Dvirka and Bartilucci Consulting Engineers

Duties included the following:

- ☐ Supervise technical staff.
- ☐ Project management.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ State Superfund Investigation/Remediation Programs.
- ☐ Landfill Post-Closure Monitoring Programs.
- ☐ Soil and Groundwater Contamination Studies.
- ☐ Spill Investigation and Remediation.

September 1997 – March 2007

SENIOR PROJECT HYDROGEOLOGIST

ERM-Northeast

Duties included the following:

- ☐ Design and implementation of site investigation programs.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ Sampling and Remediation Inspection for Underground Storage Tanks.
- ☐ State Superfund Site Investigations.
- ☐ Data assessment and report preparation.

July 1989 – August 1997

GEOLOGIST

U.S. Environmental Protection Agency

Duties included the following:

- ☐ Internal consultant to Superfund and RCRA Programs.
- ☐ Sole Source Aquifer designation and review of projects within Sole Source Aquifers.
- ☐ Technical management of federal groundwater grant to New Jersey.

April 1987 – July 1989

AFFILIATIONS

American Institute of Professional Geologists (National Screening Board member 1996 - Present)

Environmental Professionals Organization of Connecticut

Long Island Association of Professional Geologists (Board member 1996 – Present, Vice-President 2016 - Present)

National Ground Water Association

New York State Council of Professional Geologists (Outreach Committee member, 2015 – Present)

Pennsylvania Council of Professional Geologists

BRIAN C MCCABE

EDUCATION: STATE UNIVERSITY OF NEW YORK AT STONY BROOK

B.S, Geology, September, 1991, Minor in Marine Science.

M.SSc., Hydrogeology, Pending. Course work included classes in Geophysics, Chemical Hydrogeology, Organic Contaminant Hydrology, and Bio-Remediation.

EXPERIENCE:

SENIOR GEOLOGIST

LAUREL Environmental Associates, Ltd.

- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ Completed OSHA 40 Hour HAZWOPER Supervisors course, 8 Hour Refresher Courses.
- ☐ Completed ASTM Environmental Site Assessment training course for professionals.

January, 2012-present

PROJECT MANAGER, DEPARTMENT MANAGER: PROFESSIONAL SERVICES

Fenley & Nicol Environmental Inc.

In charge of Environmental Services Group. Scope of work within group includes the following:

- ☐ Phase I Environmental Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ Construction and operation of remediation system.

In addition to performing any of the above-mentioned work, personally responsible for project management, of professional staff project, which, included review of proposals and reports generated by the professional service department.

Certified: OSHA Forty Hour HAZWOPER Course
Preston Groundwater Remediation Course
ASTM 1527-05 Environmental Site Assessment training course
Waterloo, Groundwater modeling I training course
Exxon-Mobil, LPS training
LIRR Track Safety training

September, 1997-July, 2012

BRIAN C MCCABE CONTINUED

FIELD TECHNICIAN, AND LABORATORY SUPERVISER

Kemron Environmental Services, Inc.

FIELD TECHNICIAN – Collected waste water and Indoor Air Quality (IAQ) samples.

LABORATORY SUPERVISER, - Supervised and performed the analysis of asbestos air and bulk samples utilizing Phase Contrast and Polarized Light Microscopist. Performed on-site sampling and analysis of asbestos air and bulk samples at the Hess oil refinery in St. Croix during the cleanup of *Hurricane Hugo*. Also worked as GC/MS and HPLC technician. Perform air, bulk and water analysis for metals utilizing ICP and Flame AA instrumentation.

Part time from February 1990-May 1991

Full time from May 1991-September 1997

AFFILIATIONS

Long Island Geologists

United States Coast Guard Auxiliary

STEVEN C. BITETTO

EXPERIENCE

Environmental Technician, Laurel Environmental Associates, Ltd., Huntington, NY

October 2006 - Present

- ☐ Phase II Subsurface Soil, Soil Vapor and Groundwater Investigations
- ☐ Remediation/Phase III projects
- ☐ Sub-Slab Soil Vapor and Indoor Air Quality (IAQ) studies
- ☐ Groundwater Quality Investigations
- ☐ Underground Injection Well Closure (UIC)
- ☐ UST removals, abandonments and spill closures
- ☐ Hazardous site remediation

FIELD SKILLS:

- ☐ Performs various methods of soil, soil vapor and groundwater sampling, groundwater monitoring
- ☐ Experienced with truck-mounted, track mounted and portable Geoprobe® machines and tooling
- ☐ Supervises ground penetrating radar, magnetic and utility surveys
- ☐ Supervises leaching pool remediation
- ☐ Performs and supervises direct push and hollow stem auger monitoring well installation
- ☐ Experienced with various field screening and monitoring equipment such as Photo Ionization Detector and water quality instruments
- ☐ Experienced with magnetic and pipe locating equipment

RELATED QUALIFICATIONS

- ☐ Geoprobe Systems Direct Push Training – setting standard and pre-pack monitoring wells.
- ☐ Regenesi Advanced Technologies for Contaminated Site Remediation and Gas Vapor Intrusion Management
- ☐ Geophysical Survey Systems, Inc. Utility Scan Ground Penetrating Radar Two Day Class
- ☐ Completed OSHA 40 HOUR HAZWOPER with confined space, 8 Hour Refresher Course to current
- ☐ OSHA HAZWOPER physical to current

ALBERT KIM

EDUCATION:

BA., Geological Science, May 2012

- ❑ State University of New York at Geneseo

RELATED COURSE

- ❑ Geology Science I & II, Mineralogy, Petrology, Structural Geology, Stratigraphy, Geology of Climate Change and Energy, Geomorphology, Isotope Geology, Chemistry I & II, Physics I & II, Calculus I & II, Biology I & II, Organic Chemistry I

EXPERIENCE:

Geologist, Laurel Environmental Associates, Ltd., Huntington NY
July 2013-Present

- ❑ Environmental Transaction Screens
- ❑ Phase I Environmental Site Assessments
- ❑ Groundwater Quality Investigations
- ❑ Utility mark outs using Ground Penetrating Radar and Line Locator
- ❑ Septic System Remediation
- ❑ Conducts Historical Research for Phase I Environmental Site Inspections
- ❑ Assists in Phase II Operations

FIELD SKILLS:

- ❑ Performs various methods of soil sampling and groundwater sampling: split spoon soil sampling, groundwater monitoring well installation, purging & sampling, soil-vapor sampling, UST sampling & registration, dye trace & floor drain closure, magnetometer survey
- ❑ Assists with truck-mounted/track mounted Geoprobe® machines and tooling
- ❑ Oversees leaching pool “super sucker” remediation
- ❑ Experience/Proficient with the GSSI UtilityScan™ DF ground penetrating radar and the SPX® Radiodetection® RD 8000 line locator for marking out utilities, geotechnical drilling, ground penetrating radar survey, and locating other buried anomalies
- ❑ Performs and assists direct push and hollow stem auger monitoring well installation
- ❑ Assists drilling and installation of groundwater monitoring wells, drilling of borings, and UST removals and abandoning
- ❑ Experience with PID, hand auger, soil-vapor probe, soil dredge sampler, magnetometer, pH meter

DINA PALAZZOLO

EDUCATION: SUSQUEHANNA UNIVERSITY

B.S., Earth and Environmental Sciences, May 2015

Departmental Honors, Magna Cum Laude

RELATED COURSES:

Hydrology, Chemistry of Natural Water, Geology, Ground Penetrating Radar, Green Chemistry, Sedimentology and Stratigraphy, ArcGIS, Sustainable Energy, Environmental Geophysics, Physics I, Chemistry I & II, Calculus I & II

EXPERIENCE:

Environmental Consultant, Laurel Environmental Associates, Ltd., Huntington NY

Summer 2014, May 2015 - Present

- ☐ Execute phase I and II environmental site assessments
- ☐ Perform cesspool, groundwater, and dry well soil samplings
- ☐ Aids in pilot testing of soil vapor extraction remediation systems
- ☐ Write to completion environmental phase I and phase II reports
- ☐ Air quality sampling for mold analysis and soil vapors

FIELD AND TECHNICAL SKILLS

- ☐ Experience using X-Ray Diffractometer, Spectro Xepos X-Ray Fluorescence
- ☐ Water quality analysis
- ☐ Slug tests
- ☐ Ground penetrating radar and analysis of data with Radan 7
- ☐ Completed projects with ArcGIS
- ☐ Utilizing SuperSting resistivity meter for projects and investigations
- ☐ Experience with Computers: Microsoft Office Suite

JAMIE BURGHER

EDUCATION: STONY BROOK UNIVERSITY

B.S., Geology, May 2016

Departmental Honors, Magna Cum Laude

RELATED COURSES:

Field Geology, Geophysical Survey Methods, Introduction to Geochronology and Thermochronology, Introduction to Geophysics, Igneous and Metamorphic Petrology, Sedimentation and Stratigraphy, Structural Geology, Mineralogy, GIS Design and Application, GIS Project Management, Linear Algebra, Differential Equations.

EXPERIENCE:

Geologist, Laurel Environmental Associates, Ltd. Huntington, NY.

June 2016 - Present

- ☐ Execute phase I environmental site assessments
- ☐ Provide site oversight to ensure compliance with environmental regulations
- ☐ Draft phase I environmental reports

Research Assistant, Stony Brook University. Stony Brook, NY.

September 2015 – Present

- ☐ Carry out geophysical investigations of suspected glaciotectionic structures
- ☐ Lead small groups in successfully completing field work
- ☐ Provide assistance to large groups of students learning the fundamentals of field work
- ☐ Use java based GIS systems to map extent of objects and establish relationships
- ☐ Compare terrestrial analogues to structures seen on Mars

FIELD AND TECHNICAL SKILLS:

- ☐ Extensive experience using ground penetrating radar (GPR) units (50 – 800 MHz)
- ☐ Processing of GPR data for use in presentations and publications
- ☐ Practical experience in the use of magnetometers and gravimeters
- ☐ Knowledge of multiple surveying techniques to make accurate topographic measurements
- ☐ Use of ArcGIS and jMARS software to create information products
- ☐ Ability to create dynamic presentations using Microsoft PowerPoint
- ☐ Capable of drafting Excel spreadsheets to meet user specific demands

KENDRA ARMSTEAD

EDUCATION: STONY BROOK UNIVERSITY

B.A., Sustainability Studies, December 2013

Departmental Honors, Summa Cum Laude

M.U.P., Environmental Planning, In Progress

RELATED COURSES

Environmental Science, Environmental Resource Management, Chemistry 1, Biology 1, Calculus 1, GIS Geospatial Analysis, Systems and Models (STELLA), Environmental Economics and Management, Technical Writing, Restoration Ecology

EXPERIENCE

Environmental Scientist, Laurel Environmental Associates, Ltd., Huntington NY

June 2016- Present

- ☐ Execute Phase I and Phase II environmental site assessments
- ☐ Draft Phase I and Phase II environmental reports
- ☐ Conduct historical research for Phase I environmental site assessments and report
- ☐ Oversee site remediation projects to ensure compliance with environmental regulations
- ☐ Perform cesspool, groundwater, and dry well soil sampling

FIELD AND TECHNICAL SKILLS

- ☐ Generate dynamic systems models with STELLA program
- ☐ Extensive technical writing for environmental research and feasibility studies
- ☐ Geospatial analysis mapping
- ☐ Proficient with Microsoft Office Suite



PHASE II REMEDIAL INVESTIGATION REPORT

**INDUSTRIAL PROPERTY
255 RANDOLPH STREET
BROOKLYN, NEW YORK 11201**

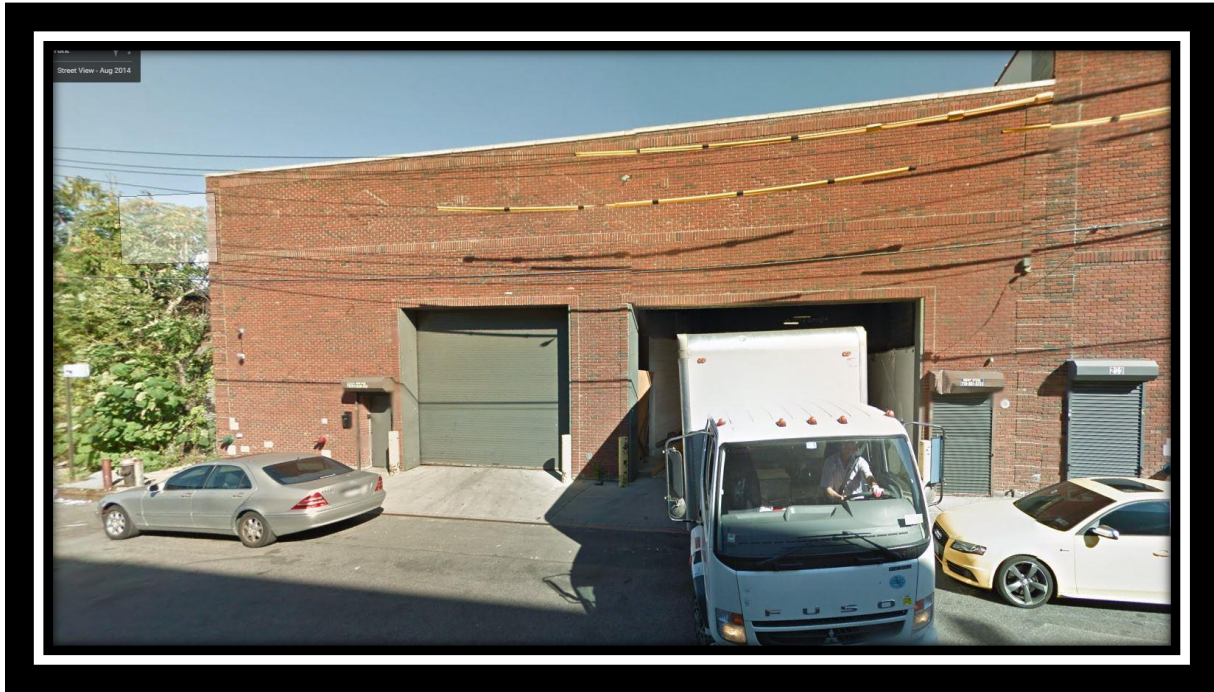
PREPARED FOR:

**255 RANDOLPH STREET PROPERTIES, LLC
213-19 99TH AVENUE
QUEENS VILLAGE, NEW YORK, 11429**

PREPARED BY:

**LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
53 WEST HILLS ROAD, SUITE 1
HUNTINGTON STATION, NEW YORK**

**AUGUST XX, 2016
LEA PROJECT # 16-203.1**



255 Randolph St, Brooklyn, New York

**LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
ENVIRONMENTAL CERTIFICATION**

LEA Project No.: 16-203.1

Report: Phase II Remedial Investigation Report

Field Work Dates: July 14, 15, and 18, 2016

Report Date: August xx, 2016

Site: 255 Randolph Street, Brooklyn, NY, 11201
Located on the north side of Randolph Street, east of Scott Avenue.

Weather Conditions: 90°F, Cloudy with High Humidity

Client: 255 Randolph Street Properties, LLC

Report Prepared By:

Jamie Burgher
Geologist

Kenneth P. Wenz, Jr, QA/QC
Senior Geologist

ENVIRONMENTAL PROFESSIONAL CERTIFICATION

I declare that, to the best of my professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in § 312.10 of 40 Code of Federal Regulations (CFR) 312.

The Environmental Professional who directed this project has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Scott A. Yanuck
Principal

Date



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REPORT SPECIFICATIONS

This report contains (18) pages of text.

Copies and circulation of this report are as follows:

- (1) Electronic copy to 255 Randolph Street Properties, LLC
- (1) Electronic copy to NYSDEC, Ms. Jane O’Connell
- (1) Electronic copy to Tenen Environmental, Mr. Matthew Carrol
- (1) Electronic copy to Edgewater Environmental, Mr. Stephen R. Hix.
- (1) One copy in the confidential client file at ***Laurel Environmental Associates, Ltd.***

This report is prepared for the exclusive use of the principal(s) noted above and is considered private and confidential. **LEA** shall not release this report or any of the findings of this report to any person or agency except with the authorization of the named principal(s).

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1.1 SITE HISTORY

As summarized in the final draft report titled *Environmental Site Investigation Summary Report, April – May 2014*, prepared by Edgewater Environmental, Inc. (Edgewater), Site occupants have included:

- Robinson Brothers Buffalo Ammonia Company, Inc./Robinson Bros Chemicals/Kings County Chemical Works, from before 1888 until at least 1985; and
- AABCO Sheet Metal/Accurate Specialty Metal Fabricators, from 1992 through 2000.

Historic fire insurance maps for the time period between 1888 and 2007 include no references to storage or use of chlorinated solvents at the Site.

1.2 SUMMARY OF PREVIOUS INVESTIGATIONS

According to the February 21, 2014 *Phase II Remedial Investigation*, prepared by Advanced Cleanup Technologies, Inc. (ACT), ACT prepared a Phase I Environmental Site Assessment (ESA) Report for the Site in January 2014, which recommended that a Phase II ESA be conducted at the Site due to its historic industrial use and the suspected presence of a fuel oil underground storage tank (UST). The Phase II ESA field work was conducted on February 10 through 12, 2014, and included a geophysical survey to evaluate the presence and location of the suspect UST (no evidence of the UST was identified at the Site), sampling of four soil borings, and installation and sampling of four temporary groundwater monitoring wells. All four soil samples and two of the groundwater samples (TW-1 and TW-4) were submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and RCRA metals (dissolved metals were analyzed in the groundwater samples). The groundwater samples from TW-2 and TW-3 were analyzed for VOCs only.

Soil sample results were compared to New York State Unrestricted Use Soil Cleanup Objectives (SCOs) and Commercial SCOs, as listed in 6 NYCRR Part 375. The VOC, tetrachloroethylene (PCE) was detected in the soil samples at concentrations above the Commercial SCO in the samples from SB-3 and SB-4. Unrestricted Use SCOs for acetone, trichloroethylene (TCE), cis-1,2-dichloroethene (1,2-DCE), and vinyl chloride (TCE, cis-1,2-DCE, and vinyl chloride are breakdown products of PCE) were exceeded in the sample from SB-3, and the Unrestricted Use SCOs for TCE and 1,1,1-trichloroethane (1,1,1-TCA) were exceeded in the sample from SB-4. In addition, Unrestricted Use SCOs were exceeded for mercury (samples from SB-1, SB-2, and SB-3) and lead (sample from SB-2).

Groundwater results were compared to New York State Class GA groundwater standards, as documented in Technical and Operational Guidance Series (TOGS) memorandum 1.1.1 from the New York State Department of Environmental Conservation (NYSDEC). Class GA standards were exceeded for several VOCs, including PCE (all four samples), TCE (TW-2, TW-3, and TW-4), cis-1,2-DCE (TW-2 and TW-3), trans-1,2-DCE (TW-2 and TW-3), vinyl chloride (TW-2 and TW-3), 1,1,1-TCA (TW-3), 1,1-dichloroethane (TW-3), and chloroform (TW-3).

Based on these results, a follow-up soil and groundwater sampling event was conducted at the Site in April and May 2014. As documented in Edgewater's final draft report titled *Environmental Site Investigation Summary Report, April – May 2014*, the sampling scope included advancing soil borings at four (4) exterior locations (SB-1 through SB-4) and nine (9) interior locations (SB-5 through SB-13). Eighteen soil samples (one to three from each boring) were collected for laboratory analysis of VOCs. In addition, groundwater samples were collected from temporary wells installed at four (4) of the soil boring locations (GW-1 through GW-4). Sample locations are shown on Figure 1.0.

Three chlorinated VOCs were detected in the soil samples at concentrations that exceeded Unrestricted Use SCOs, including PCE (12 samples), TCE (9 samples), and cis-1,2-DCE (2 samples). These VOCs were also detected in groundwater beneath the Site at concentrations exceeding New York State Class GA Groundwater Standards. Other VOCs that were detected at concentrations exceeding New York State Class GA Groundwater Standards in at least one samples were trans-1,2-DCE, vinyl chloride, 1,1,1-TCA, 1,1-dichloroethane, methylene chloride, and naphthalene.

1.3 SAMPLING AND ANALYSIS PLAN

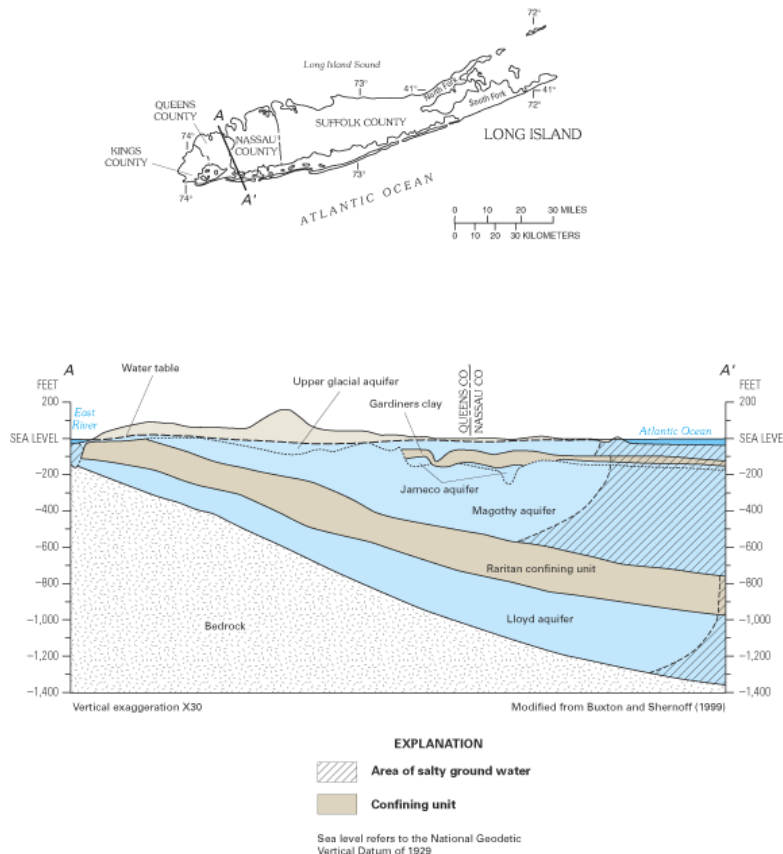
A sampling and analysis program was developed to further assess environmental conditions at the Site. The scope of work for the field investigation included:

- Advance soil borings at six (6) locations. The samples selected for analysis represent 0 – 2 feet below the building slab or ground surface, along with the “worst-case” 2-foot interval from the unsaturated zone within the boring, based on PID readings and field observations.
 - Soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, hexavalent chromium, cyanide, and pesticides listed in 6 NYCRR Part 375. Sample results were compared to 6 NYCRR Part 375-6.8(a) Protection of Groundwater Soil Cleanup Objectives (SCOs).
- Install four (4), 2-inch permanent PVC monitoring wells at a depth of 10 feet below groundwater, each with a 10-foot section of screen installed across the water table. Each well was developed, surveyed, and sampled.
 - Groundwater samples were analyzed for VOCs, SVOCs, metals (total and dissolved), hexavalent chromium, cyanide, and pesticides. Analytical results were compared to New York State Ambient Groundwater Quality Standards and Guidance Values.

- Installed three (3) permanent sub-slab soil vapor points, and collected three (3) sub-slab soil vapor, two (2) exterior soil vapor samples, one (1) indoor air, and one (1) outdoor ambient air samples at the Site using 6-liter Summa canisters fitted with 6 L/hour flow controllers, designed to collect samples over a 1-hour period.
 - Soil vapor and ambient air samples were analyzed for VOCs using USEPA Method TO-15 and compared to parameters set forth in the NYSDOH Final Guidance for Evaluating Vapor Intrusion in New York State.

2.0 SITE HYDROGEOLOGY

Kings County, New York is located in the Atlantic Coastal Plain physiographic province that is characterized by low hills of unconsolidated sands, gravel and silt. According to Franke (1972), regionally, the near-surface sediments consist of the Upper Glacial deposits that are characterized by southward sloping deposits of sand, gravel and silt. The Upper Glacial deposits have a maximum thickness of 600 feet, and are underlain by the Magothy, Raritan, and Lloyd Formations. The Site overlies the Upper Glacial aquifer. Pump test data suggests hydraulic conductivity between the Magothy and Upper Glacial aquifers. However, discontinuous clay lenses may prevent this interaction in some areas. Public water supplies to New York City residents are obtained from reservoirs in upstate New York.



According to NYSDEC groundwater contour maps, topographic quadrangles prepared by the U. S. Geological Survey, and previous work performed by **LEA** in the area, the Site has an elevation of approximately 17 feet above mean sea level. Regional groundwater is estimated to be 13 feet below ground surface, and the regional flow is to the north, towards Newtown Creek. On July 18, 2016 a site specific hydrogeologic study was conducted to confirm localized on-site groundwater depth and flow direction. Please refer to Section 5.1 for further information.

3.0 SUBSURFACE SOIL INVESTIGATION

3.1 SOIL SAMPLING

On July 14 and 15, 2016, **LEA** staff advanced soil borings at two (2) exterior locations and four (4) interior locations. Sample locations were spaced to assess conditions across the Site. Using a model 6712DT Geoprobe®, soil samples were collected continuously from ground surface to at least twenty (20) feet below ground surface (bgs) at boring locations designated SB-RI1 through SB-RI6. Please refer to Figure 2.0 Site Sketch for soil boring locations.

Two samples were submitted for analysis from each soil boring. All samples recovered from 0 – 2 feet bgs were submitted for laboratory analysis. In addition, the soil samples were field screened using a photoionization detector (PID) and the 2-foot interval of the highest readings within the unsaturated zone was also selected for analysis. If no elevated PID readings were detected, the 2-foot interval immediately above the water table was selected for analysis.

LEA geologists inspected the soil cores to characterize soil stratigraphy and determine the depth to groundwater. Generally, the on-site soils appeared to be brown to tan silty sands with areas of well graded and poorly graded sands. The majority of the samples collected showed a PID reading of >15,000 parts per million. No odors were noted during the sampling process, however a distinct odor was noted when first entering the Site, and may have led to olfactory fatigue. Please refer to Appendix E for Soil Boring Logs giving a detailed description.

3.2 LABORATORY ANALYSIS – SOIL BORINGS

A total of twelve (12) soil samples were submitted for laboratory analysis. Sample volumes were placed into appropriate laboratory supplied containers, stored on ice, and delivered via laboratory courier to York Analytical Labs, Inc., for laboratory analysis of 6 NYCRR Part 375 parameters, including VOCs, SVOCs, PCBs, metals, hexavalent chromium, cyanide, and pesticides, with a NYSDEC Analytical Services Protocol (ASP) Category B data package. Laboratory data packages are included in Appendix A and the 6 NYCRR Part 375-6.8(a) Protection of Groundwater SCOs are included in Appendix B.

Analytical results for soil samples are summarized in Table I, which shows the following:

- Concentrations of several VOCs, including 1,1,1-trichloroethane (1,1,1-TCA), 1,4-dioxane, 2-butanone, acetone, cis-1,2-dichloroethene (1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and trans-1,2-DCE, exceeding Protection of Groundwater SCOs were detected in at least one of the samples collected from each boring.
- VOCs were detected in the samples from SB-RI4 @ 11'-13', SB-RI5 @ 0-2', and SB-RI6 @ 9-11', but at concentrations below Protection of Groundwater SCOs.
- Concentrations of four (4) SVOCs, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene, exceeding Protection of Groundwater SCOs were detected in three (3) samples, including SB-RI4 @ 0-2', SB-RI5 @ 0-2', and SB-RI6 @ 9-11'. SVOCs were detected in each of the remaining samples, but at concentrations below Protection of Groundwater SCOs.
- Concentrations of metals exceeding Protection of Groundwater SCOs were detected in six (6) samples, including SB-RI2 @ 0-2', SB-RI3 @ 0-2', SB-RI4 @ 0-2', SB-RI5 @ 10-12', SB-RI6 @ 0-2', and SB-RI6 @ 9-11'. The metals for which SCOs were exceeded include arsenic, barium, lead, mercury, nickel, and selenium. Metals were detected in each of the remaining samples, but at concentrations below Protection of Groundwater SCOs.
- No exceedances of Protection of Groundwater SCOs for hexavalent chromium, cyanide, PCBs, or pesticides were identified in any of the soil samples.

3.3 WASTE MANAGEMENT

Excess soil generated during soil boring activities was contained in a Department of Transportation (DOT) approved, 55-gallon steel-top drum. The drummed soil was staged at the Site pending characterization and proper disposal.

4.0 GROUNDWATER INVESTIGATION

4.1 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

On July 14 and 15, 2016, using a model 6712DT Geoprobe®, four (4) permanent monitoring wells, designated MW-1 through MW-4, were installed at the Site (well locations are shown on Figure 2.0 Site Sketch). Each monitoring well was constructed using a 10-foot length of 2-inch diameter PVC screen and 2-inch diameter PVC casing. The well screen was placed to straddle the water table, and a clean sand pack was placed around the screen and at least one foot above the top of the screen. A bentonite seal was placed above the sand pack. Each well was completed at ground surface with a locking cap and steel manhole set into concrete. The monitoring wells were developed with a peristaltic pump to remove suspended particulates and establish hydraulic communication with the surrounding formation.

On July 18, 2016, samples were collected via dedicated tubing from each monitoring well, at locations designated MW-1 through MW-4. Prior to groundwater sample acquisition, depth to water (DTW) and depth to bottom (DTB) were measured in each monitoring well using an electronic interface probe. The wells were purged using a check valve, peristaltic pump, and dedicated tubing prior to collection of the sample. Visual and olfactory inspection of the groundwater samples did not indicate the presence of sheen or unusual odors. During purging, groundwater quality was monitored for the following parameters: pH,

conductivity, turbidity, temperature, dissolved oxygen, and oxidation/reduction potential. Monitoring logs can be found in Appendix F.

The groundwater samples were collected from the pump discharge and immediately transferred into appropriate laboratory supplied containers, placed on ice, and delivered via laboratory courier to York Analytical Laboratories, Inc. for analysis.

4.2 LABORATORY ANALYSIS - GROUNDWATER

The groundwater samples were analyzed for VOCs, SVOCs, PCBs, metals (total and dissolved), hexavalent chromium, cyanide, and pesticides with a NYSDEC ASP Category B data package. Analytical results were compared against New York State Class GA Groundwater Standards and Guidance Values. Laboratory results can be found in Appendix A and the Class GA Groundwater Standards and Guidance Values are included in Appendix D.

Analytical results for groundwater samples are summarized in Table II, which shows the following:

- Concentrations of VOCs exceeding Class GA Groundwater Standards were detected in all four (4) monitoring wells. VOCs exceeding the standards included 1,1,1-TCA, 1,1-dichloroethane, 1,2-dichloroethane, cis-1,2-DCE, PCE, and TCE.
- SVOCs, PCBs, cyanide, and hexavalent chromium were not detected in any of the groundwater samples at concentrations exceeding Class GA Groundwater Standards.
- The pesticide Dieldrin was detected in MW-3 and a concentration exceeding its Class GA Groundwater Standard.
- Manganese (total and dissolved) was detected in the samples from MW-3 and MW-4 at concentrations exceeding its Class GA Groundwater Standard. Total lead was also detected in the sample from MW-4 at a concentration exceeding the Class GA Groundwater Standard, but the dissolved lead in this sample was well below the standard..

5.0 GROUNDWATER FLOW DIRECTION

On July 18, 2016, **LEA** geologists surveyed the newly-installed monitoring wells at the Site, using an optical level and a stadia rod, to establish the elevations of each of the permanent monitoring wells relative to an arbitrary datum. Using these data and the depth to groundwater measurements gathered during the groundwater investigation, the groundwater elevation within each well was calculated. The elevations were then used to prepare a Site-specific groundwater elevation contour map, which is shown on Figure 3.0. As shown on this figure, the groundwater flow at the Site is toward the north.

6.0 SOIL VAPOR INVESTIGATION

The soil vapor investigation was designed to identify assess indoor air and soil vapor quality. The term "vapor intrusion" refers to the process by which volatile chemicals move from a subsurface source into the indoor air of overlying or adjacent buildings. The subsurface source can either be contaminated groundwater or soil which releases vapors into the pore spaces in the soil.

6.1 SOIL VAPOR SAMPLING

On July 14 and 15, 2016, **LEA** staff collected three (3) sub-slab soil vapor samples (designated SS-1, SS-2, and SS-3), two (2) soil vapor samples (designated SV-1 and SV-2), one (1) indoor air sample (designated IA-1), and one (1) outdoor ambient air sample (designated OA-1) at the Site. Sample locations are shown on Figure 2.0 Site Sketch. This work was completed before any other testing commenced to eliminate the possibility of cross contamination caused by the sampling of subsurface soil and groundwater.

Samples were collected using 6 Liter Summa canisters fitted with 6 L/hour flow controllers, to collect samples over a 1-hour period. All samples were collected and analyzed in accordance with standard industry practices including purging the line and confirming a tight surface seal using helium prior to sampling, and were submitted to York Analytical Laboratories, Inc. for laboratory analysis. Each sample was evaluated twice, once in its original state and a secondary analysis with a dilution factor.

6.2 LABORATORY ANALYSIS – SOIL VAPOR AND AIR SAMPLES

Samples from the sub-slab soil vapor, soil vapor, indoor air, and outdoor air were submitted for laboratory analysis of VOCs using Method TO-15. Samples were delivered via laboratory courier to York Analytical Labs, Inc., for analysis. Laboratory results can be found in Appendix A and the NYSDOH Soil Vapor/Indoor Air Matrices are included in Appendix C.

Analytical results are summarized in Table III, which shows the following:

- Elevated concentrations of TCE and PCE were detected in each of the soil vapor samples and the indoor air sample.
- Several other VOCs, including 1,1,1-TCA, 1,1-DCE, carbon tetrachloride, cis-1,2-DCE, and vinyl chloride, were detected at elevated concentrations in most of the soil vapor samples

7.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES (QA/QC)

The following sampling QA/QC protocol is in accordance with the United States Environmental Protection Agency (USEPA) accepted sampling procedures for hazardous waste streams [Municipal Research Laboratory, 1980, Sampling and Analysis Procedures for Hazardous Material Waste Streams, Office of Emergency and Remedial Response, Cincinnati, Ohio. EPA-600/280-018] and American Society of Testing and Material's (ASTM's) Sampling Procedures.

7.1 SAMPLING PERSONNEL

The activities associated with the survey, sampling and analysis plan were performed by or under the auspices of a USEPA Office of Emergency and Remedial Response, Certified Sampler for Hazardous Materials. The sample staff (samplers) possessed a minimum of a B.A. Degree in the Earth, Environmental, or Biological Sciences or a B.S. Degree in Engineering. Samplers have a minimum of one year experience in environmental/geological field work. Additionally, all samplers had received mandatory forty-hour Occupational Safety and Health Administration (OSHA) training on working with potentially hazardous materials and appropriate Hazard Communication Program and "Right-To-Know" training.

7.2 SAMPLING EQUIPMENT

Separate QA/QC measures were implemented for each of the instruments used in the performance of the SAP.

7.2.1 Photoionization Detector

Calibration of the Photoionization Detector (PID) was conducted prior to sampling using a span gas of known concentration. The PID was a *RAE Systems MiniRae 2000*, photo ionization detection meter equipped with a 10.6 eV bulb.

7.2.2 Sample Vessels

All sample vessels were "Level A" certified decontaminated containers supplied by a New York State Certified Commercial Laboratory. Samples analyzed for hydrocarbons were placed in containers with Teflon lined caps. All samples were preserved by cooling them to a temperature of approximately four degrees Celsius.

7.3 SAMPLE DOCUMENTATION

A sample represents physical evidence. An essential part of liability reduction is the proper control of gathered evidence. To establish proper control, the following sample identification and chain-of custody procedures were followed.

7.3.1 Sample Identification

Sample identification was executed by use of a sample tag, log book, and chain-of-custody form. Said documentation provided the following information: 1) the project code; 2) the sample laboratory number; 3) the sample preservation; 4) instrument used for source sample grabs; 5) the composite medium used for source sample grabs; 6) the date the sample was secured from the source media; 7) the time the sample was secured from the source media; and 8) the person who secured the sample from the source media.

7.3.2 Chain-of-Custody Procedures

Due to the evidential nature of samples, possession was traceable from the time the samples were collected until they were received by the testing laboratory. A sample was considered under custody if it: was in a person's possession; was in a person's view, after being in possession; was in a person's possession and they locked it up; or, was in a designated secure area. When transferring custody, the individuals relinquishing and receiving the samples signed, dated, and noted the time on the Chain-of-Custody Form.

7.3.3 Laboratory-Custody Procedures

A designated sample custodian accepted custody of the shipped samples and verified that the information on the sample tags matched that on the Chain-of-Custody Records. Pertinent information as to shipment, pick-up, courier, etc., were entered in the "remarks" section. The custodian entered the sample tag data into a bound logbook. The laboratory custodian used the sample tag number, or assigned a unique laboratory number to each sample tag, and assured that all samples were transferred to the proper analyst or stored in the appropriate source area. The laboratory custodian distributed samples to the appropriate analysts. Laboratory personnel were responsible for the care and custody of samples, from the time they were received, until the sample was exhausted or returned to the sample custodian. All identifying data sheets and laboratory records were retained as part of the permanent documentation. Samples received by the laboratory were retained until after analysis and quality assurance checks were completed.

8.0 INVESTIGATION SUMMARY AND CONCLUSIONS

Based on the results of this Phase II Remedial Investigation, *Laurel Environmental Associates, Ltd.* has found the following:

Subsurface Soil Investigation:

Soil and GW worse at SW corner - possible sewer leak

1. Soil borings were advanced at six (6) locations throughout the Site, and two samples were submitted for analysis from each soil boring location, designated SB-RI1 through SB-RI6. The samples recovered from 0' – 2' below ground surface were selected for laboratory analysis, in addition to the “worst-case” 2-foot interval within the unsaturated zone.
2. Elevated levels of several VOCs, SVOCs, and metals were detected at every soil boring location, above their respective Protection of Groundwater SCOs. The highest levels of contamination were generally found at shallow depths.

Groundwater Investigation:

1. Groundwater samples were collected from four (4) permanent monitoring wells installed at the Site during this investigation. Samples were collected via dedicated tubing from each monitoring well, at locations designated MW-1 through MW-4.
2. Several VOCs were detected in every groundwater sample at concentrations exceeding Class GA Groundwater Standards. In addition, Class GA Groundwater Standards were exceeded for the pesticide dieldrin, manganese (total and dissolved), and lead (total only) in the groundwater samples from MW-3 and MW-4.

Soil Vapor Investigation:

1. Elevated levels of PCE and TCE were detected in the indoor air sample.
2. The highest sub-slab contamination of PCE, from SS-1 at 5,694,898 $\mu\text{g}/\text{m}^3$, is significantly above the NYSDOH Soil Vapor/Indoor Air Matrices limits of 100 $\mu\text{g}/\text{m}^3$. This indicates the likely entrance of vapor from sub-slab contamination into the building. Based on comparison of TCE and PCE levels in soil vapor and indoor air samples to NYSDOH guidance, mitigation would be required.
3. Several other VOCs were found at elevated concentrations in the sub-slab and soil vapor samples

9.0 RECOMMENDATIONS

Based on the findings of this study, *Laurel Environmental Associates, Ltd.* recommends further investigation to identify the sources of the detected soil, groundwater, and air contamination, and to delineate the horizontal and vertical extent of the contamination, so that a remediation plan can be developed.

Perhaps we have enough data to prepare a Remediation Action Workplan. We are thinking removal of hot spots in behind building and at front of building coupled with ISCO and a SVI or large SSDS. Would need to complete pilot tests of ISCO and SVI/SSDS

DISCLAIMER FOR PHASE II ENVIRONMENTAL SITE ASSESSMENT

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client.

In preparing this report, Laurel Environmental Associates, Ltd. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Laurel Environmental Associates, Ltd. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, Laurel Environmental Associates, Ltd. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, Laurel Environmental Associates, Ltd. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to non-hazardous or hazardous materials, in that portion of the subject property or structure. In addition, Laurel Environmental Associates, Ltd. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floor, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

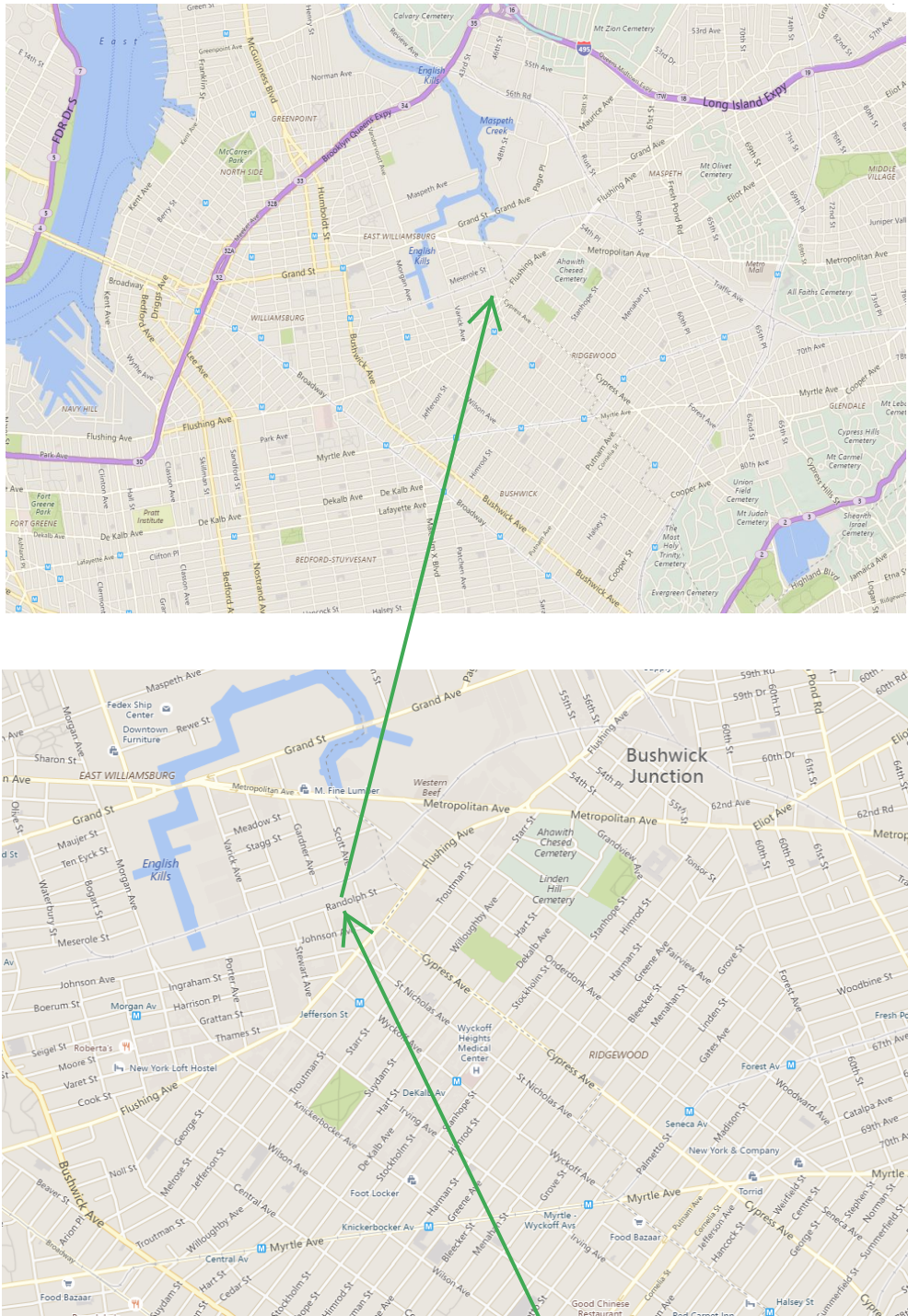
Laurel Environmental Associates, Ltd. did not perform testing or analyses to determine the presence or concentration of asbestos at the subject property or in the environment of the subject property under the scope of the services performed. The conclusions and recommendations contained in this report are based in part, where noted, upon the data obtained from a limited number of soil samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

Any water level readings made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory has conducted such analyses, Laurel Environmental Associates, Ltd. has relied upon the data provided, and has not conducted an independent evaluation of the reliability of the data.

The conclusions and recommendations contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly.

Chemical analyses have been performed for specific constituents during the course of this subject property assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study might be present in soil and/or groundwater at the subject property.



LEA, 53 West Hills Road, Suite 1, Huntington Station, New York 11746

Figure 1.0 Site Location
255 Randolph Street
Brooklyn, New York

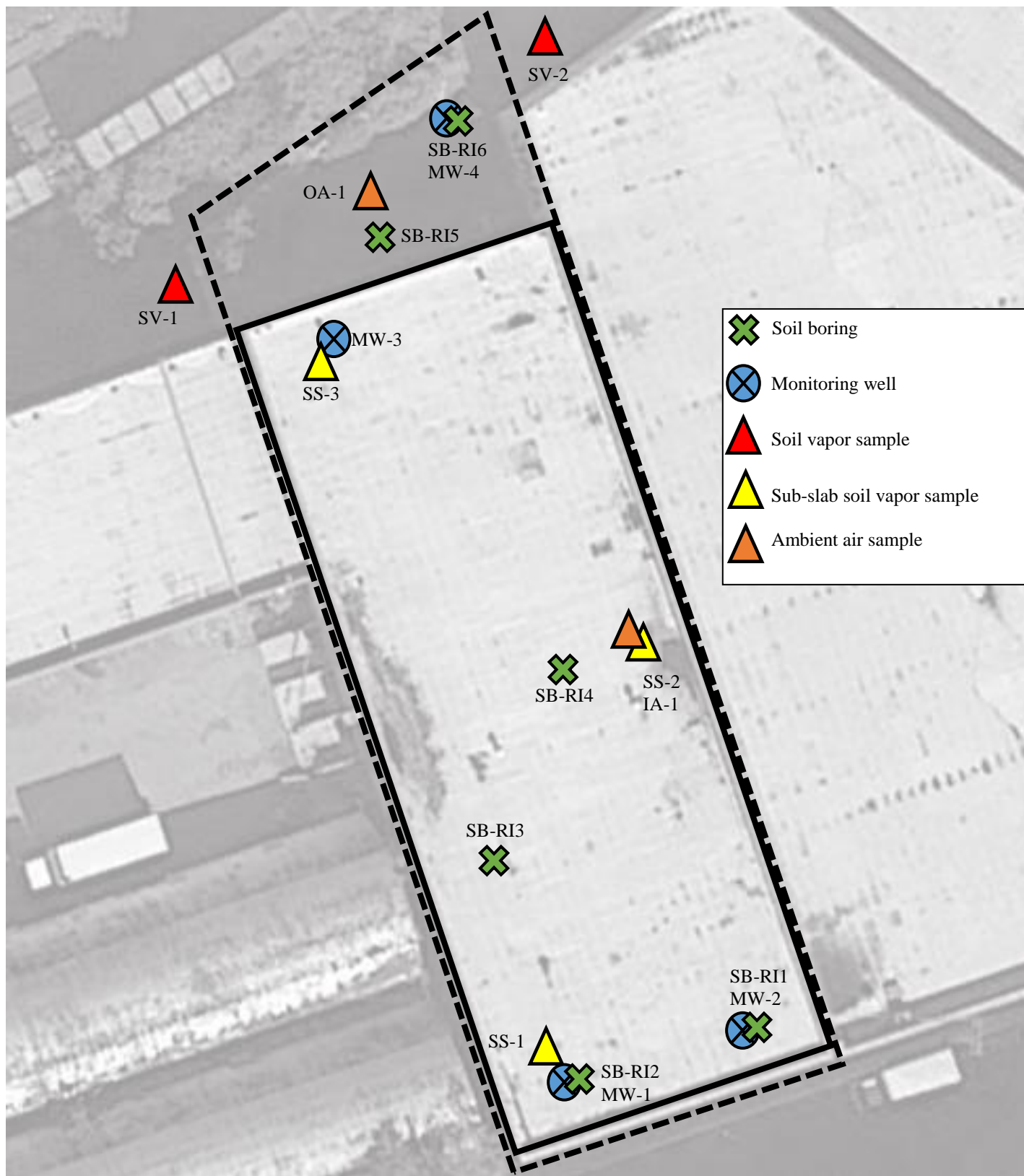


Figure 2.0

SITE SKETCH AND
SAMPLING MAP – 7/18/2016

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

DRAWN BY: KW

CHECKED BY: SAY



53 West Hills Road, Suite 1
Huntington Station, NY 11746

PHONE: 631-673-0612
FAX: 631-427-5323

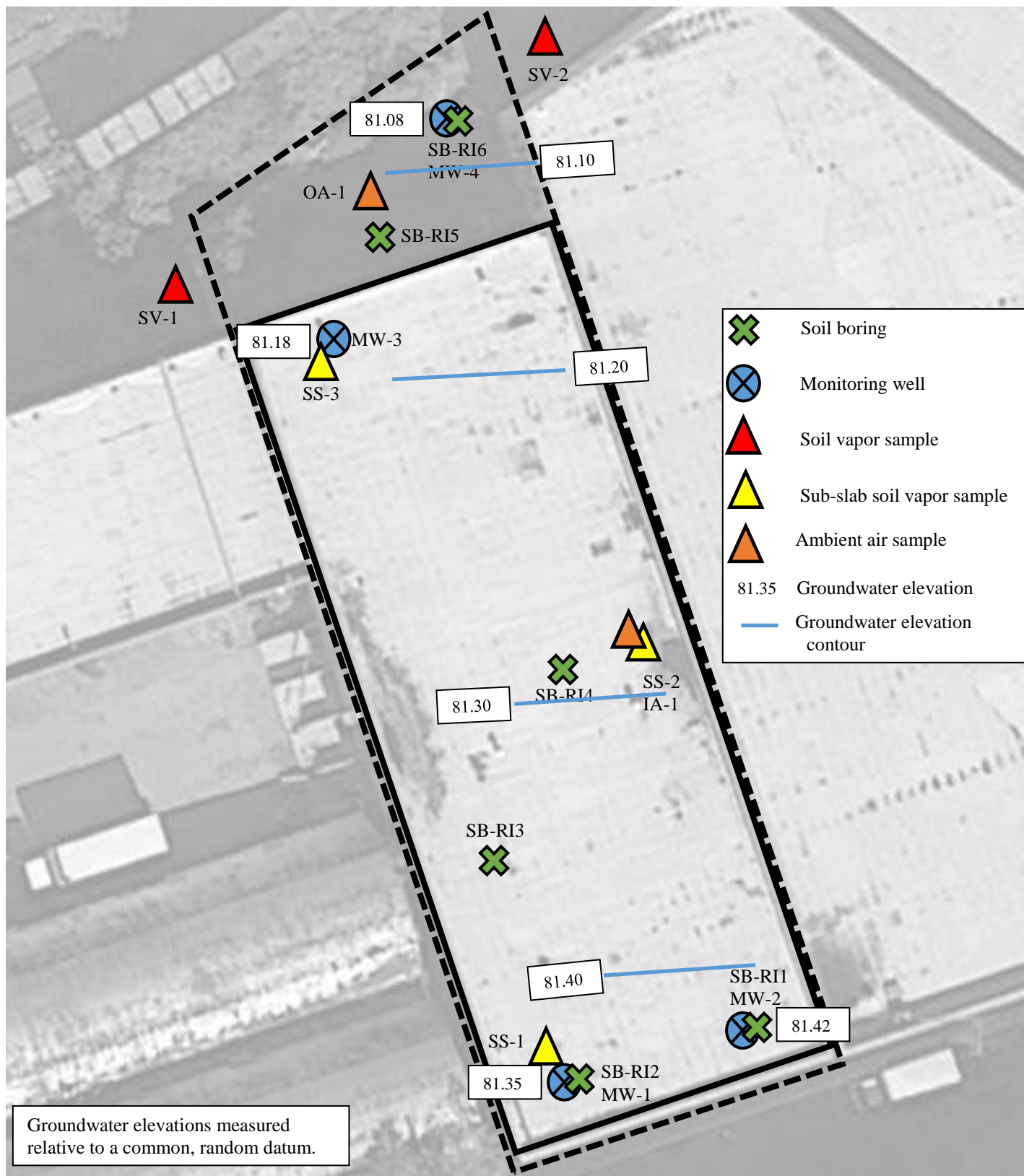


Figure 3.0

GROUNDWATER ELEVATION
CONTOUR MAP – 7/18/2016

255 RANDOLPH STREET
BROOKLYN, NEW YORK

PROJECT # : 16-203.1

DRAWING DATE: 7-28-2016

DRAWN BY: KW

CHECKED BY: SAY



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Table I
Compounds Detected in Soil Boring Samples

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	SB-R11 @ 0-2' 16G0570-01 7/14/2016 15:00 Soil		SB-R11 @ 10-12' 16G0570-02 7/14/2016 15:00 Soil		SB-R12 @ 0-2' 16G0570-03 7/14/2016 15:00 Soil		SB-R12 @ 11-13' 16G0570-04 7/14/2016 15:00 Soil		SB-R13 @ 0-2' 16G0570-05 7/14/2016 15:00 Soil		SB-R13 @ 11-13' 16G0570-06 7/14/2016 15:00 Soil		SB-R14 @ 0-2' 16G0570-07 7/14/2016 15:00 Soil	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs		µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor			2,000		100		10,000		1		100		100		100	
1,1,1-Trichloroethane	71-55-6	680	2,300	D	250	U	8,400	D	3.4	J	310	U	410	U	280	U
1,2-Dichlorobenzene	95-50-1	1,100	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
1,4-Dichlorobenzene	106-46-7	1,800	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
1,4-Dioxane	123-91-1	100	5,300	U	4,900	U	8,800	U	120		6,200	U	8,300	U	5,700	U
2-Butanone	78-93-3	120	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Acetone	67-64-1	50	530	U	490	U	880	U	4.5	U	630	JBD	830	U	570	U
Carbon tetrachloride	56-23-5	760	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Chloroform	67-66-3	370	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
cis-1,2-Dichloroethylene	156-59-2	250	260	U	250	U	520	JD	2.3	U	310	U	410	U	280	U
Methylene chloride	75-09-2	50	530	U	490	U	880	U	4.5	U	620	U	830	U	570	U
Naphthalene	91-20-3	12,000	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
o-Xylene	95-47-6	~	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
p- & m- Xylenes	179601-23-1	~	530	U	490	U	880	U	4.5	U	620	U	830	U	570	U
Tetrachloroethylene	127-18-4	1,300	160,000	D	5,200	D	650,000	D	200	E	16,000	D	10,000	D	10,000	D
trans-1,2-Dichloroethylene	156-60-5	190	260	U	250	U	440	U	2.3	U	310	U	410	U	280	U
Trichloroethylene	79-01-6	470	36,000	D	700	D	440,000	D	76		10,000	D	2,200	D	11,000	D
Xylenes, Total	1330-20-7	1,600	790	U	740	U	1,300	U	6.8	U	930	U	1,200	U	850	U
SVOCs		µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor			10		2		2		2		2		2		2	
Acenaphthene	83-32-9	98,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	83.3	JD
Acenaphthylene	208-96-8	107,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	46.2	U
Anthracene	120-12-7	1,000,000	109	U	43.4	U	84.6	JD	43.3	U	45.8	U	45.4	U	453	D
Benzo(a)anthracene	56-55-3	1,000	109	U	43.4	U	523	D	43.3	U	91.2	JD	45.4	U	2,350	D
Benzo(a)pyrene	50-32-8	22,000	217	U	43.4	U	529	D	43.3	U	96.3	D	45.4	U	883	D
Benzo(b)fluoranthene	205-99-2	1,700	217	U	43.4	U	512	D	43.3	U	98.5	D	45.4	U	1,430	D
Benzo(g,h,i)perylene	191-24-2	1,000,000	109	U	43.4	U	236	D	43.3	U	45.8	U	45.4	U	345	D
Benzo(k)fluoranthene	207-08-9	1,700	217	U	43.4	U	386	D	43.3	U	83.2	JD	45.4	U	876	D
Chrysene	218-01-9	1,000	217	U	43.4	U	619	D	43.3	U	104	D	45.4	U	2,170	D
Dibenzo(a,h)anthracene	53-70-3	1,000,000	109	U	43.4	U	88.5	JD	43.3	U	45.8	U	45.4	U	172	D
Dibenzofuran	132-64-9	210,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	82.6	JD
Fluoranthene	206-44-0	1,000,000	187	JD	43.4	U	924	D	43.3	U	156	D	45.4	U	5,900	D
Fluorene	86-73-7	386,000	109	U	43.4	U	92.5	JD	74.6	JD	45.8	U	45.4	U	122	D
Indeno(1,2,3-cd)pyrene	193-39-5	8,200	109	U	43.4	U	236	D	43.3	U	45.8	U	45.4	U	390	D
Naphthalene	91-20-3	12,000	109	U	43.4	U	49.1	U	43.3	U	45.8	U	45.4	U	46.2	U
Phenanthrene	85-01-8	1,000,000	109	U	43.4	U	485	D	43.3	U	66.4	JD	45.4	U	5,760	D
Pyrene	129-00-0	1,000,000	177	JD	43.4	U	876	D	43.3	U	147	D	45.4	U	4,950	D
Pesticides		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			5		5		5		5		5		5		5	
alpha-Chlordane	5103-71-9	2.9	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U

Table I (continued)
Compounds Detected in Soil Boring Samples

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	SB-RI1 @ 0-2' 16G0570-01 7/14/2016 15:00 Soil		SB-RI1 @ 10-12' 16G0570-02 7/14/2016 15:00 Soil		SB-RI2 @ 0-2' 16G0570-03 7/14/2016 15:00 Soil		SB-RI2 @ 11-13' 16G0570-04 7/14/2016 15:00 Soil		SB-RI3 @ 0-2' 16G0570-05 7/14/2016 15:00 Soil		SB-RI3 @ 11-13' 16G0570-06 7/14/2016 15:00 Soil		SB-RI4 @ 0-2' 16G0570-07 7/14/2016 15:00 Soil	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Metals		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Arsenic	7440-38-2	16	2.58		1.21		41.70		1.04	U	16.60		2.44		4.52	
Barium	7440-39-3	820	34.60		27.20		357		23.90		51.60		26.20		125	
Beryllium	7440-41-7	47	0.10	U	0.13		0.22		0.14		0.11	U	0.19		0.34	
Cadmium	7440-43-9	7.5	0.31	U	0.31	U	0.35	U	0.31	U	0.33	U	0.33	U	0.33	U
Chromium	7440-47-3	~	10.40		9.90		16.90		7.61		18.20		16		11.60	
Copper	7440-50-8	1720	25.30		18.50		80.40		9.77		28.30		8.93		26.90	
Lead	7439-92-1	450	36.30		2.91		334		1.99		57.60		3.59		241	
Manganese	7439-96-5	2000	156		266		168		328		278		253		358	
Nickel	7440-02-0	130	9.54		8.03		13.70		8.06		11.90		12.40		9.85	
Selenium	7782-49-2	4	1.04	U	2.51		6.83		2.43		6.81		3.71		3.52	
Zinc	7440-66-6	2480	32.20		16.70		109		49.50		47.40		46.80		41	
Mercury by 7470/7471		mg/Kg														
Dilution Factor																
Mercury	7439-97-6	0.73	NT		NT		NT		NT		NT		NT		NT	
Mercury by 7473		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Mercury	7439-97-6	0.73	0.16		0.031	U	1.32		0.031	U	0.19		0.033	U	1.54	
Chromium, Hexavalent		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Chromium, Hexavalent	18540-29-9	19	0.52	U	1.87		0.59	U	0.52	U	0.55	U	0.54	U	0.55	U
Chromium, Trivalent		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Chromium, Trivalent	16065-83-1	~	10.40		8.60		23.60		7.61		18.20		16		11.60	
Cyanide, Total		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Cyanide, total	57-12-5	40	0.52	U	0.52	U	0.59	U	0.52	U	0.55	U	0.54	U	0.55	U
Total Solids			%		%		%		%		%		%		%	
Dilution Factor			1		1		1		1		1		1		1	
% Solids	solids	~	96.20		96.40		85.10		96.50		91.40		92.10		90.40	
PCBs		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1		1	
Aroclor 1254	11097-69-1	~	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U
Aroclor 1260	11096-82-5	~	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U
Total PCBs	1336-36-3	3.2	0.017	U	0.017	U	0.020	U	0.017	U	0.018	U	0.018	U	0.018	U

NOTES:

Any Regulatory Exceedences are color coded by Regulation

*: Duplicate sample from SB-RI2 0-2'

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

NT=this indicates the analyte was not a target for this sample

~this indicates that no regulatory limit has been established for this analyte

Table I (continued)
Compounds Detected in Soil Boring Samples

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	SB-RI4 @ 11-13' 16G0570-08 7/14/2016 15:00 Soil		Soil Dup @ 0-2' * 16G0570-09 7/14/2016 15:00 Soil		SB-RI5 @ 0-2' 16G0639-01 7/15/2016 15:00 Soil		SB-RI5 @ 10-12' 16G0639-02 7/15/2016 15:00 Soil		SB-RI6 @ 0-2' 16G0639-03 7/15/2016 15:00 Soil		SB-RI6 @ 9-11' 16G0639-04 7/15/2016 15:00 Soil	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs		µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor			1		20,000		1		1,007		4,900		1	
1,1,1-Trichloroethane	71-55-6	680	5		7,200	D	3.1	U	61		3.7	J	4	U
1,2-Dichlorobenzene	95-50-1	1,100	2.3	U	350	U	3.1	U	11		2.3	U	4	U
1,4-Dichlorobenzene	106-46-7	1,800	2.3	U	350	U	3.1	U	2.9	J	2.3	U	4	U
1,4-Dioxane	123-91-1	100	46	U	7,000	U	62	U	54	U	46	U	79	U
2-Butanone	78-93-3	120	2.3	J	350	U	3.1	U	2.7	U	77		8.2	
Acetone	67-64-1	50	4.6	U	760	JBD	10	JB	27	B	4.6	U	18	B
Carbon tetrachloride	56-23-5	760	2.3	U	350	U	3.1	U	3.2	J	2.3	U	4	U
Chloroform	67-66-3	370	2.3	U	350	U	3.1	U	18		2.7	J	4	U
cis-1,2-Dichloroethylene	156-59-2	250	2.3	U	540	JD	3.1	U	110		66		22	
Methylene chloride	75-09-2	50	4.6	U	700	U	6.2	U	6.1	J	4.6	U	7.9	U
Naphthalene	91-20-3	12,000	2.3	U	350	U	3.1	U	6.6	J	2.3	U	4	U
o-Xylene	95-47-6	~	2.3	U	350	U	3.1	U	5.6		2.3	U	4	U
p- & m- Xylenes	179601-23-1	~	4.6	U	700	U	6.2	U	7.9	J	4.6	U	7.9	U
Tetrachloroethylene	127-18-4	1,300	120		640,000	D	14		59,000	D	260,000	D	160	
trans-1,2-Dichloroethylene	156-60-5	190	2.3	U	350	U	3.1	U	12		4.2	J	4	U
Trichloroethylene	79-01-6	470	76		530,000	D	3.1	U	19,000	D	120		36	
Xylenes, Total	1330-20-7	1,600	6.9	U	1,100	U	9.2	U	14	J	7	U	12	U
SVOCs		µg/Kg	µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg		µg/Kg	
Dilution Factor			2		2		2		10		2		2	
Acenaphthene	83-32-9	98,000	47.3	U	48.2	U	54.2	JD	996	D	177	D	92.2	JD
Acenaphthylene	208-96-8	107,000	47.3	U	48.2	U	104	D	233	D	56.7	JD	46.6	U
Anthracene	120-12-7	1,000,000	47.3	U	80.7	JD	218	D	3,120	D	426	D	237	D
Benzo(a)anthracene	56-55-3	1,000	47.3	U	503	D	815	D	5,200	D	943	D	1,480	D
Benzo(a)pyrene	50-32-8	22,000	47.3	U	476	D	221	D	1,700	D	473	D	1,210	D
Benzo(b)fluoranthene	205-99-2	1,700	47.3	U	582	D	283	D	2,010	D	551	D	1,110	D
Benzo(g,h,i)perylene	191-24-2	1,000,000	47.3	U	184	D	187	D	880	D	350	D	768	D
Benzo(k)fluoranthene	207-08-9	1,700	47.3	U	269	D	345	D	2,240	D	500	D	1,130	D
Chrysene	218-01-9	1,000	47.3	U	557	D	766	D	4,950	D	841	D	1,390	D
Dibenzo(a,h)anthracene	53-70-3	1,000,000	47.3	U	65.3	JD	47.2	U	503	D	180	D	431	D
Dibenzofuran	132-64-9	210,000	47.3	U	48.2	U	47.2	U	832	D	96.2	D	46.6	U
Fluoranthene	206-44-0	1,000,000	47.3	U	838	D	1,450	D	11,200	D	1,820	D	2,280	D
Fluorene	86-73-7	386,000	47.3	U	87.6	JD	55.7	JD	1,300	D	195	D	46.6	U
Indeno(1,2,3-cd)pyrene	193-39-5	8,200	47.3	U	172	D	197	D	1,050	D	324	D	773	D
Naphthalene	91-20-3	12,000	47.3	U	48.2	U	47.2	U	353	D	58.2	JD	46.6	U
Phenanthrene	85-01-8	1,000,000	47.3	U	440	D	676	D	12,100	D	1,390	D	653	D
Pyrene	129-00-0	1,000,000	47.3	U	788	D	2,130	D	8,040	D	1,530	D	1,910	D
Pesticides		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			5		5		5		5		5		5	
alpha-Chlordane	5103-71-9	2.9	0.0017	U	0.0017	U	0.0017	U	0.0017	U	0.0028	D	0.0017	U

Table I (continued)
Compounds Detected in Soil Boring Samples

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives- Protection of GW	SB-RI4 @ 11-13' 16G0570-08 7/14/2016 15:00 Soil		Soil Dup @ 0-2' * 16G0570-09 7/14/2016 15:00 Soil		SB-RI5 @ 0-2' 16G0639-01 7/15/2016 15:00 Soil		SB-RI5 @ 10-12' 16G0639-02 7/15/2016 15:00 Soil		SB-RI6 @ 0-2' 16G0639-03 7/15/2016 15:00 Soil		SB-RI6 @ 9-11' 16G0639-04 7/15/2016 15:00 Soil	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Metals		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		100	
Arsenic	7440-38-2	16	1.13	U	36.60		4.15		5.11		6.63		89.30	
Barium	7440-39-3	820	18		936		78.70		150		99.70		323	
Beryllium	7440-41-7	47	0.11	U	0.23		0.11	U	0.11	U	0.24		0.17	
Cadmium	7440-43-9	7.5	0.34	U	0.35	U	0.86		0.34	U	1.05		0.44	
Chromium	7440-47-3	~	8.60		23.60		24.90		73.80		28.90		15.90	
Copper	7440-50-8	1720	11.10		93.90		99.90		58.50		136		132	
Lead	7439-92-1	450	1.66		518		220		2,890		293		27,400	D
Manganese	7439-96-5	2000	292		165		198		188		206		35.80	
Nickel	7440-02-0	130	6.75		16		30.40		931		25.30		19.80	
Selenium	7782-49-2	4	2.18		6.33		1.13	U	3.48		1.12	U	4.76	
Zinc	7440-66-6	2480	14.50		124		285	B	1,240	B	440	B	592	B
Mercury by 7470/7471		mg/Kg											mg/Kg	
Dilution Factor													1	
Mercury	7439-97-6	0.73	NT		NT		NT		NT		NT		0.038	
Mercury by 7473		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg			
Dilution Factor			1		1		1		1		1			
Mercury	7439-97-6	0.73	0.034	U	1.36		0.72		2.04		2.12		NT	
Chromium, Hexavalent		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1	
Chromium, Hexavalent	18540-29-9	19	0.57	U	0.58	U	3.12		1.97		0.56	U	0.56	U
Chromium, Trivalent		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1	
Chromium, Trivalent	16065-83-1	~	8.60		23.60		21.80		71.80		28.90		15.90	
Cyanide, Total		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1	
Cyanide, total	57-12-5	40	0.57	U	0.58	U	0.57	U	0.57	U	0.56	U	0.84	
Total Solids			%		%		%		%		%		%	
Dilution Factor			1		1		1		1		1		1	
% Solids	solids	~	88.40		86.80		88.50		87.50		89.40		89.60	
PCBs		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Dilution Factor			1		1		1		1		1		1	
Aroclor 1254	11097-69-1	~	0.019	U	0.019	U	0.085		0.019	U	0.019	U	0.019	U
Aroclor 1260	11096-82-5	~	0.019	U	0.019	U	0.019	U	0.019	U	0.046		0.019	U
Total PCBs	1336-36-3	3.2	0.019	U	0.019	U	0.085	U	0.019	U	0.046		0.019	U

NOTES:

Any Regulatory Exceedences are color coded by Regulation

*: Duplicate sample from SB-RI2 0-2'

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table II
Compounds Detected in Monitoring Well Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDEC TOGS Standards and Guidance Values - GA	MW-1 16G0638-01 7/18/2016 13:00 Water		MW-2 16G0638-02 7/18/2016 13:00 Water		MW-3 16G0638-03 7/18/2016 13:00 Water		MW-4 16G0638-04 7/18/2016 13:00 Water		Equipment Blank 16G0638-05 7/18/2016 13:00 Water		GW Dup * 16G0638-06 7/18/2016 13:00 Water		Trip Blank 16G0638-07 7/18/2016 13:00 Water	
Compound	CAS Number		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
Dilution Factor			50		1		10		1		1		1		1	
1,1,1-Trichloroethane	71-55-6	5	65		7.70		1.10		0.20	U	0.20	U	7.20		0.20	U
1,1-Dichloroethane	75-34-3	5	0.59		0.27	J	1.90		14		0.20	U	0.27	J	0.20	U
1,1-Dichloroethylene	75-35-4	5	1.20		0.20	U	4.70		0.20	U	0.20	U	0.20	U	0.20	U
1,2-Dichlorobenzene	95-50-1	3	0.20	U	0.20	U	0.50		0.20	U	0.20	U	0.20	U	0.20	U
1,2-Dichloroethane	107-06-2	0.6	0.59	B	0.62	B	0.61	B	0.20	U	0.20	U	0.20	U	0.20	U
Acetone	67-64-1	50	1	U	1	U	1	U	1.50	JB	1.30	JB	1	U	2.10	B
Carbon tetrachloride	56-23-5	5	0.20	U	2.20	U	0.20	U	0.20	U	0.20	U	2.30	U	0.20	U
Chlorobenzene	108-90-7	5	0.43	J	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Chloroform	67-66-3	7	1.80		1.10		0.62		0.20	U	0.20	U	1.20		0.20	U
cis-1,2-Dichloroethylene	156-59-2	5	5.20		1.60		230	D	9.20		0.20	U	1.40		0.20	U
Tetrachloroethylene	127-18-4	5	1,700	D	150		540	D	3.10		0.20	U	140		0.20	U
trans-1,2-Dichloroethylene	156-60-5	5	0.20	U	0.20	U	6.30		0.24	J	0.20	U	0.20	U	0.20	U
Trichloroethylene	79-01-6	5	790	D	89		70		0.25	J	0.20	U	87		0.20	U
Vinyl Chloride	75-01-4	2	0.20	U	0.20	U	0.20	U	42		0.20	U	0.20	U	0.20	U
SVOCs	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Acenaphthene	83-32-9	20	0.057	U	0.057	U	0.059	U	0.14		0.059	U	0.056	U	NT	
Acenaphthylene	208-96-8	~	0.057	U	0.057	U	0.059	U	0.056		0.059	U	0.056	U	NT	
Anthracene	120-12-7	50	0.057	U	0.057	U	0.059	U	0.089		0.059	U	0.056	U	NT	
Fluoranthene	206-44-0	50	0.057	U	0.057	U	0.059	U	0.067		0.059	U	0.056	U	NT	
Fluorene	86-73-7	50	0.057	U	0.057	U	0.059	U	0.10		0.059	U	0.056	U	NT	
Naphthalene	91-20-3	10	0.057	U	0.057	U	0.059	U	0.16		0.059	U	0.056	U	NT	
Phenanthrene	85-01-8	50	0.057	U	0.057	U	0.059	U	0.40		0.059	U	0.056	U	NT	
Pyrene	129-00-0	50	0.057	U	0.057	U	0.059	U	0.10		0.059	U	0.056	U	NT	
Pesticides	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Dieldrin	60-57-1	0.004	0.0024	U	0.0023	U	0.0055		0.0023	U	0.0024	U	0.0022	U	NT	
Metals, Total	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Barium	7440-39-3	1,000	58		41		67		27		11	U	42		NT	
Chromium	7440-47-3	50	6	U	6	U	10		6	U	6	U	6	U	NT	
Copper	7440-50-8	200	18		27		27		17		13		12		NT	
Lead	7439-92-1	25	3	U	3	U	7		85		3	U	3	U	NT	
Manganese	7439-96-5	300	187		232		1,520		1,140		6	U	236		NT	
Nickel	7440-02-0	100	6	U	6	U	6		6	U	6	U	6	U	NT	
Zinc	7440-66-6	2,000	25		41		42		45		23		22		NT	
Metals, Dissolved	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Barium	7440-39-3	1,000	60		43		35		12		11	U	43		NT	
Copper	7440-50-8	200	46		25		20		17		14		13		NT	
Manganese	7439-96-5	300	207		221		1,400		1,120		6	U	239		NT	
Zinc	7440-66-6	2,000	37		29		23		17		21		158		NT	
Mercury by 7473, Dissolved	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Chromium, Trivalent	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L			
Dilution Factor			1		1		1		1		1		1			
Chromium, Trivalent	16065-83-1	~	10	U	10	U	10		10	U	10	U	10	U	NT	

NOTES:

Any Regulatory Exceedences are color coded by Regulation

*: Duplicate sample collected from MW-2

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

Table III
Compounds With NYSDOH Criteria Detected in Soil Vapor and Ambient Air Samples
255 Randolph Street, Brooklyn, New York

Sample ID York ID Sampling Date Client Matrix		NYSDOH Criteria		IA-1 16G0568-01 7/14/2016 15:00 Indoor Ambient Air		OA-1 16G0568-02 7/14/2016 15:00 Outdoor Ambient Air		SS-1 16G0568-03 7/14/2016 15:00 Soil Vapor		SS-2 16G0568-04 7/14/2016 15:00 Soil Vapor		SS-3 16G0568-05 7/14/2016 15:00 Soil Vapor		SV-1 16G0568-06 7/14/2016 15:00 Soil Vapor		SV-2 16G0568-07 7/14/2016 15:00 Soil Vapor	
Compound	CAS Number	Sub-slab Soil Vapor	Ambient Air	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs		µg/m ³	µg/m ³	µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³		µg/m ³	
Dilution Factor				10.08		1.00		16,729.00		18.33		184.00		20.00		18.53	
1,1,1-Trichloroethane	71-55-6	100	100	37.09	D	1.36		196,351.59	D	37.09	D	1,199.93	D	54.54	D	261.80	D
1,1-Dichloroethylene	75-35-4	100	100	1.11	D	0.40	U	5,152.17	D	7.13	U	9.51	D	7.93	U	7.53	U
Carbon tetrachloride	56-23-5	5	5	1.01	D	0.16	U	308.14	D	2.89	U	396.18	D	3.14	U	20.12	D
cis-1,2-Dichloroethylene	156-59-2	100	100	5.55	D	0.40	U	2,100.50	D	7.13	U	832.27	D	1,188.96	D	36.86	D
Tetrachloroethylene	127-18-4	100	30	745.76	D	29.83		5,694,897.79	D	1,966.10	D	19,660.96	D	1,627.11	D	1,830.50	D
Trichloroethylene	79-01-6	5	2	365.27	D	16.11		4,136,152.90	D	644.60	D	32,229.76	D	1,880.07	D	1,826.35	D
Vinyl Chloride	75-01-4	5	5	0.28	U	0.26	U	7.92	D	4.60	U	4.60	U	56.21	D	4.85	U

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Bold	Mitigation Recommended
<i>Bold Italic</i>	Monitoring Recommended

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

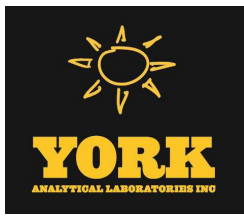
B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

~=this indicates that no regulatory limit has been established for this analyte

APPENDIX A

Laboratory Analysis
-Soil Boring Analysis
-Groundwater Analysis
-Air Quality Analysis



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0570

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0570

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 15, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0570-01	SB-RI1 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-02	SB-RI1 @ 10-12'	Soil	07/14/2016	07/15/2016
16G0570-03	SB-RI2 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-04	SB-RI2 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-05	SB-RI3 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-06	SB-RI3 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-07	SB-RI4 @ 0-2'	Soil	07/14/2016	07/15/2016
16G0570-08	SB-RI4 @ 11-13'	Soil	07/14/2016	07/15/2016
16G0570-09	Soil Dup @ 0-2'	Soil	07/14/2016	07/15/2016

General Notes for York Project (SDG) No.: 16G0570

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/25/2016





Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.

16G0570

Client Project ID

255 Randolph Street

Matrix

Soil

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	2.3		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	5.3	11	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
71-43-2	Benzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
67-66-3	Chloroform	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.26	1.1	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS



Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:33	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.53	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:33	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
127-18-4	Tetrachloroethylene	160		mg/kg dry	5.3	11	2000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:21	BK
108-88-3	Toluene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:33	SS
79-01-6	Trichloroethylene	36		mg/kg dry	5.3	11	2000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:21	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.26	0.53	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.79	1.6	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:33	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %	77-125								
2037-26-5	Surrogate: Toluene-d8	95.4 %	85-120								
460-00-4	Surrogate: p-Bromofluorobenzene	87.0 %	76-130								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
120-12-7	Anthracene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR



Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
191-24-2	Benzo(g,h,i)perylene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
218-01-9	Chrysene	ND		mg/kg dry	0.217	0.434	10	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 20:29	SR
53-70-3	Dibenzo(a,h)anthracene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
206-44-0	Fluoranthene	0.187	J	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
86-73-7	Fluorene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND	IS-06	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
108-95-2	Phenol	ND		mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
129-00-0	Pyrene	0.177	J	mg/kg dry	0.109	0.217	5	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/24/2016 12:34	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	30.8 %	20-108								
4165-62-2	Surrogate: Phenol-d5	41.0 %	23-114								
4165-60-0	Surrogate: Nitrobenzene-d5	60.1 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	32.6 %	21-113								
118-79-6	Surrogate: 2,4,6-Tribromophenol	30.2 %	19-110								
1718-51-0	Surrogate: Terphenyl-d14	32.2 %	24-116								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC



Sample Information

Client Sample ID: SB-R11 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:43	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	76.5 %				30-150					
877-09-8	Surrogate: Tetrachloro-m-xylene	60.6 %				30-150					

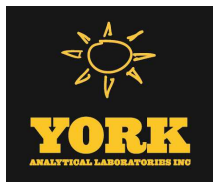
Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC



Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

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July 14, 2016 3:00 pm

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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:03	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:03	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	63.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	59.0 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	2.58		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-39-3	Barium	34.6		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.312	0.312	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-47-3	Chromium	10.4		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-50-8	Copper	25.3		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7439-92-1	Lead	36.3		mg/kg dry	0.312	0.312	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7439-96-5	Manganese	156		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-02-0	Nickel	9.54		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7782-49-2	Selenium	ND		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-22-4	Silver	ND		mg/kg dry	0.520	0.520	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV
7440-66-6	Zinc	32.2		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:31	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.162		mg/kg dry	0.0312	0.0312	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 11:25	KV



Sample Information

Client Sample ID: SB-RI1 @ 0-2'

York Sample ID: 16G0570-01

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.2		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.364	0.520	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	10.4		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.520	0.520	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS



Sample Information

Client Sample ID: SB-R11 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	4.9	9.8	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
71-43-2	Benzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
67-66-3	Chloroform	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.25	0.98	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:04	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.49	0.98	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:04	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	5.2		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
108-88-3	Toluene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:04	SS
79-01-6	Trichloroethylene	0.70		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.25	0.49	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.74	1.5	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:04	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %				77-125					
2037-26-5	Surrogate: Toluene-d8	98.1 %				85-120					
460-00-4	Surrogate: p-Bromofluorobenzene	91.0 %				76-130					

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
108-95-2	Phenol	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0434	0.0866	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:57	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	85.0 %									
4165-62-2	Surrogate: Phenol-d5	104 %									
4165-60-0	Surrogate: Nitrobenzene-d5	126 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	78.2 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	48.4 %									
1718-51-0	Surrogate: Terphenyl-d14	77.6 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/25/2016 12:58	AMC



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
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Client Project ID
255 Randolph Street

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Collection Date/Time
July 14, 2016 3:00 pm

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07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/25/2016 12:58	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	78.4 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	39.7 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:24	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:24	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	63.0 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	69.0 %		30-140							



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	1.21		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-39-3	Barium	27.2		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-41-7	Beryllium	0.130		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-47-3	Chromium	9.90		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-50-8	Copper	18.5		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7439-92-1	Lead	2.91		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7439-96-5	Manganese	266		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-02-0	Nickel	8.03		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7782-49-2	Selenium	2.51		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-22-4	Silver	ND		mg/kg dry	0.519	0.519	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV
7440-66-6	Zinc	16.7		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:48	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0311	0.0311	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:13	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI1 @ 10-12'

York Sample ID: 16G0570-02

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	1.87		mg/kg dry	0.363	0.519	1	EPA 7196A	07/22/2016 09:58	07/22/2016 16:49	LAB
Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP											

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	8.60		mg/kg	0.250	0.500	1	Calculation	07/22/2016 16:57	07/22/2016 17:35	PAM
Certifications:											

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.519	0.519	1	EPA 9014/9010C	07/22/2016 08:03	07/22/2016 16:57	LAB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	8.4		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C	07/21/2016 18:19	07/22/2016 05:35	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											



Sample Information

Client Sample ID: SB-R12 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	8.8	18	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
71-43-2	Benzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
67-66-3	Chloroform	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
156-59-2	cis-1,2-Dichloroethylene	0.52	J	mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.44	1.8	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:35	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.88	1.8	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 05:35	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
127-18-4	Tetrachloroethylene	650		mg/kg dry	44	88	10000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:51	BK
108-88-3	Toluene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 05:35	SS
79-01-6	Trichloroethylene	440		mg/kg dry	44	88	10000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 16:51	BK



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.44	0.88	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.3	2.6	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 05:35	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %				77-125					
2037-26-5	Surrogate: Toluene-d8	95.2 %				85-120					
460-00-4	Surrogate: p-Bromofluorobenzene	90.4 %				76-130					

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
120-12-7	Anthracene	0.0846	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
56-55-3	Benzo(a)anthracene	0.523		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
50-32-8	Benzo(a)pyrene	0.529		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
205-99-2	Benzo(b)fluoranthene	0.512		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
191-24-2	Benzo(g,h,i)perylene	0.236		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
207-08-9	Benzo(k)fluoranthene	0.386		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
218-01-9	Chrysene	0.619		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
53-70-3	Dibenzo(a,h)anthracene	0.0885	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
206-44-0	Fluoranthene	0.924		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
86-73-7	Fluorene	0.0925	J	mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.236		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
85-01-8	Phenanthrene	0.485		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
108-95-2	Phenol	ND		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR
129-00-0	Pyrene	0.876		mg/kg dry	0.0491	0.0980	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:16	SR

Surrogate Recoveries		Result	Acceptance Range	
367-12-4	Surrogate: 2-Fluorophenol	65.6 %	20-108	
4165-62-2	Surrogate: Phenol-d5	7.18 %	S-08 23-114	
4165-60-0	Surrogate: Nitrobenzene-d5	115 %	S-08 22-108	
321-60-8	Surrogate: 2-Fluorobiphenyl	73.1 %	21-113	
118-79-6	Surrogate: 2,4,6-Tribromophenol	83.5 %	19-110	
1718-51-0	Surrogate: Terphenyl-d14	76.9 %	24-116	

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC



Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:22	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	198 %	S-HI			30-150					
877-09-8	Surrogate: Tetrachloro-m-xylene	171 %	S-HI			30-150					

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:41	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0196	0.0196	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:41	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	160 %	S-HI			30-140					
2051-24-3	Surrogate: Decachlorobiphenyl	130 %	S-HI			30-140					

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: SB-RI2 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	41.7		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-39-3	Barium	357		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-41-7	Beryllium	0.221		mg/kg dry	0.118	0.118	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-47-3	Chromium	16.9		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-50-8	Copper	80.4		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7439-92-1	Lead	334		mg/kg dry	0.353	0.353	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7439-96-5	Manganese	168		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-02-0	Nickel	13.7		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7782-49-2	Selenium	6.83		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-22-4	Silver	ND		mg/kg dry	0.588	0.588	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV
7440-66-6	Zinc	109		mg/kg dry	1.18	1.18	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:53	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.32		mg/kg dry	0.0353	0.0353	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:22	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	85.1		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-R12 @ 0-2'

York Sample ID: 16G0570-03

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.411	0.588	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	23.6		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.588	0.588	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-R12 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	0.0034	J	mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
123-91-1	1,4-Dioxane	0.12		mg/kg dry	0.045	0.091	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
71-43-2	Benzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
67-66-3	Chloroform	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.0023	0.0091	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 02:33	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0045	0.0091	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 02:33	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
127-18-4	Tetrachloroethylene	0.20	E	mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
108-88-3	Toluene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 02:33	SS
79-01-6	Trichloroethylene	0.076		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0023	0.0045	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0068	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 02:33	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %			77-125						
2037-26-5	Surrogate: Toluene-d8	98.6 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	89.8 %			76-130						

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
86-73-7	Fluorene	0.0746	J	mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
108-95-2	Phenol	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0433	0.0864	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 16:48	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	103 %				20-108					
4165-62-2	Surrogate: Phenol-d5	123 %	S-08			23-114					
4165-60-0	Surrogate: Nitrobenzene-d5	157 %	S-08			22-108					
321-60-8	Surrogate: 2-Fluorobiphenyl	96.3 %				21-113					
118-79-6	Surrogate: 2,4,6-Tribromophenol	103 %				19-110					
1718-51-0	Surrogate: Terphenyl-d14	89.1 %				24-116					

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:38	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	111 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	94.4 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 16:58	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0173	0.0173	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 16:58	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	87.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	78.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	23.9		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-41-7	Beryllium	0.144		mg/kg dry	0.104	0.104	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-47-3	Chromium	7.61		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-50-8	Copper	9.77		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7439-92-1	Lead	1.99		mg/kg dry	0.311	0.311	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7439-96-5	Manganese	328		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-02-0	Nickel	8.06		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7782-49-2	Selenium	2.43		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-22-4	Silver	ND		mg/kg dry	0.518	0.518	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV
7440-66-6	Zinc	49.5		mg/kg dry	1.04	1.04	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 22:57	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0311	0.0311	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:34	KV

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	96.5		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.363	0.518	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB



Sample Information

Client Sample ID: SB-RI2 @ 11-13'

York Sample ID: 16G0570-04

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	7.61		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.518	0.518	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB

Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	6.2	12	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	0.63	SCAL- E, J, B	mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
71-43-2	Benzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
67-66-3	Chloroform	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.31	1.2	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:05	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.62	1.2	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:05	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
127-18-4	Tetrachloroethylene	16		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
108-88-3	Toluene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:05	SS
79-01-6	Trichloroethylene	10		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.31	0.62	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.93	1.9	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:05	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	111 %	77-125								
2037-26-5	Surrogate: Toluene-d8	98.2 %	85-120								



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	88.9 %			76-130						

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
56-55-3	Benzo(a)anthracene	0.0912	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
50-32-8	Benzo(a)pyrene	0.0963		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
205-99-2	Benzo(b)fluoranthene	0.0985		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
207-08-9	Benzo(k)fluoranthene	0.0832	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
218-01-9	Chrysene	0.104		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
206-44-0	Fluoranthene	0.156		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
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Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-01-8	Phenanthrene	0.0664	J	mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
108-95-2	Phenol	ND		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
129-00-0	Pyrene	0.147		mg/kg dry	0.0458	0.0913	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:20	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	71.5 %									
4165-62-2	Surrogate: Phenol-d5	98.4 %									
4165-60-0	Surrogate: Nitrobenzene-d5	127 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	76.9 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.1 %									
1718-51-0	Surrogate: Terphenyl-d14	75.3 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:53	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	110 %		30-150							
877-09-8	Surrogate: Tetrachloro-m-xylene	87.8 %		30-150							

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:15	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0182	0.0182	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:15	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	85.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	80.0 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	16.6		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-39-3	Barium	51.6		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.109	0.109	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV



Sample Information

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York Project (SDG) No.
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July 14, 2016 3:00 pm

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Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-43-9	Cadmium	ND		mg/kg dry	0.328	0.328	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-47-3	Chromium	18.2		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-50-8	Copper	28.3		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7439-92-1	Lead	57.6		mg/kg dry	0.328	0.328	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7439-96-5	Manganese	278		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-02-0	Nickel	11.9		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7782-49-2	Selenium	6.81		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-22-4	Silver	ND		mg/kg dry	0.547	0.547	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV
7440-66-6	Zinc	47.4		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:02	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.187		mg/kg dry	0.0328	0.0328	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:43	KV

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	91.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.383	0.547	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI3 @ 0-2'

York Sample ID: 16G0570-05

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16G0570

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Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	18.2		mg/kg	0.250	0.500	1	Calculation	07/22/2016 16:57	07/22/2016 17:35	PAM
Certifications:											

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.547	0.547	1	EPA 9014/9010C	07/22/2016 08:03	07/22/2016 16:57	LAB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP											
123-91-1	1,4-Dioxane	ND		mg/kg dry	8.3	17	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: NELAC-NY10854,NJDEP											
78-93-3	2-Butanone	ND		mg/kg dry	0.41	0.83	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											
67-64-1	Acetone	ND	SCAL- E	mg/kg dry	0.83	1.7	100	EPA 8260C	07/21/2016 18:19	07/22/2016 06:36	SS
Certifications: CTDOH,NELAC-NY10854,NJDEP											



Sample Information

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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
67-66-3	Chloroform	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.83	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.41	1.7	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:36	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.83	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 06:36	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
127-18-4	Tetrachloroethylene	10		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
108-88-3	Toluene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 06:36	SS
79-01-6	Trichloroethylene	2.2		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.41	0.83	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.2	2.5	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 06:36	SS

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	108 %	77-125
2037-26-5	Surrogate: Toluene-d8	95.4 %	85-120
460-00-4	Surrogate: p-Bromofluorobenzene	89.7 %	76-130



Sample Information

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Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
108-95-2	Phenol	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0454	0.0906	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 17:51	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	74.9 %	20-108								



Sample Information

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York Sample ID: 16G0570-06

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16G0570

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Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	7.90 %	S-08		23-114						
4165-60-0	Surrogate: Nitrobenzene-d5	128 %	S-08		22-108						
321-60-8	Surrogate: 2-Fluorobiphenyl	75.7 %			21-113						
118-79-6	Surrogate: 2,4,6-Tribromophenol	83.5 %			19-110						
1718-51-0	Surrogate: Terphenyl-d14	74.7 %			24-116						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
Surrogate Recoveries		Result		Acceptance Range							
2051-24-3	Surrogate: Decachlorobiphenyl	95.9 %			30-150						
877-09-8	Surrogate: Tetrachloro-m-xylene	84.8 %			30-150						



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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:30	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0181	0.0181	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:30	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	80.5 %	30-140								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-140								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	2.44		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-39-3	Barium	26.2		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-41-7	Beryllium	0.190		mg/kg dry	0.109	0.109	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.326	0.326	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-47-3	Chromium	16.0		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-50-8	Copper	8.93		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7439-92-1	Lead	3.59		mg/kg dry	0.326	0.326	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7439-96-5	Manganese	253		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-02-0	Nickel	12.4		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV



Sample Information

Client Sample ID: SB-RI3 @ 11-13'

York Sample ID: 16G0570-06

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3050B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7782-49-2	Selenium	3.71		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-22-4	Silver	ND		mg/kg dry	0.543	0.543	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV
7440-66-6	Zinc	46.8		mg/kg dry	1.09	1.09	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:07	KV

Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0326	0.0326	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 13:52	KV

Total Solids

Sample Prepared by Method: % Solids Prep

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	92.1		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Sample Prepared by Method: EPA SW846-3060

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.380	0.543	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Sample Prepared by Method: Analysis Preparation

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	16.0		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Sample Prepared by Method: Analysis Preparation Soil

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.543	0.543	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 08:03	07/22/2016 16:57	LAB



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Sample Prepared by Method: EPA 5035A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	5.7	11	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
71-43-2	Benzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
67-66-3	Chloroform	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.28	1.1	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 07:06	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.57	1.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 07:06	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
127-18-4	Tetrachloroethylene	10		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
108-88-3	Toluene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 07:06	SS
79-01-6	Trichloroethylene	11		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.28	0.57	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.85	1.7	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 07:06	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	112 %		77-125							
2037-26-5	Surrogate: Toluene-d8	94.2 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	88.5 %		76-130							

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
83-32-9	Acenaphthene	0.0833	J	mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
120-12-7	Anthracene	0.453		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
56-55-3	Benzo(a)anthracene	2.35		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
50-32-8	Benzo(a)pyrene	0.883		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	1.43		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
191-24-2	Benzo(g,h,i)perylene	0.345		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
207-08-9	Benzo(k)fluoranthene	0.876		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
218-01-9	Chrysene	2.17		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
53-70-3	Dibenzo(a,h)anthracene	0.172		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
132-64-9	Dibenzofuran	0.0826	J	mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
206-44-0	Fluoranthene	5.90		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
86-73-7	Fluorene	0.122		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.390		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
85-01-8	Phenanthrene	5.76		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
108-95-2	Phenol	ND		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
129-00-0	Pyrene	4.95		mg/kg dry	0.0462	0.0922	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:55	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	76.0 %									
4165-62-2	Surrogate: Phenol-d5	7.21 %	S-08								
4165-60-0	Surrogate: Nitrobenzene-d5	137 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	78.9 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.7 %									
1718-51-0	Surrogate: Terphenyl-d14	82.1 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:23	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	89.6 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	78.7 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

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255 Randolph Street

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July 14, 2016 3:00 pm

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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 17:49	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0184	0.0184	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 17:49	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	77.0 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	71.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	4.52		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-39-3	Barium	125		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-41-7	Beryllium	0.337		mg/kg dry	0.111	0.111	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.332	0.332	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-47-3	Chromium	11.6		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-50-8	Copper	26.9		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7439-92-1	Lead	241		mg/kg dry	0.332	0.332	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7439-96-5	Manganese	358		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-02-0	Nickel	9.85		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7782-49-2	Selenium	3.52		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-22-4	Silver	ND		mg/kg dry	0.553	0.553	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV
7440-66-6	Zinc	41.0		mg/kg dry	1.11	1.11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:11	KV



Sample Information

Client Sample ID: SB-RI4 @ 0-2

York Sample ID: 16G0570-07

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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July 14, 2016 3:00 pm

Date Received
07/15/2016

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.54		mg/kg dry	0.0332	0.0332	1	EPA 7473	07/19/2016 10:21	07/19/2016 14:01	KV
Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP											

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	90.4		%	0.100	0.100	1	SM 2540G	07/22/2016 14:39	07/22/2016 17:13	TJM
Certifications: CTDOH											

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.387	0.553	1	EPA 7196A	07/22/2016 09:58	07/22/2016 16:49	LAB
Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP											

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	11.6		mg/kg	0.250	0.500	1	Calculation	07/22/2016 16:57	07/22/2016 17:35	PAM
Certifications:											

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.553	0.553	1	EPA 9014/9010C	07/22/2016 08:03	07/22/2016 16:57	LAB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											

Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	0.0050		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	0.046	0.093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
78-93-3	2-Butanone	0.0023	J	mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
67-64-1	Acetone	ND	SCAL-E	mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
71-43-2	Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
67-66-3	Chloroform	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
156-59-2	cis-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.0023	0.0093	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:03	SS



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.0046	0.0093	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 03:03	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
127-18-4	Tetrachloroethylene	0.12		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
108-88-3	Toluene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 03:03	SS
79-01-6	Trichloroethylene	0.076		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.0023	0.0046	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	0.0069	0.014	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 03:03	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	102 %		77-125							
2037-26-5	Surrogate: Toluene-d8	96.8 %		85-120							
460-00-4	Surrogate: p-Bromofluorobenzene	91.6 %		76-130							

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
120-12-7	Anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
56-55-3	Benzo(a)anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
50-32-8	Benzo(a)pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
205-99-2	Benzo(b)fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
191-24-2	Benzo(g,h,i)perylene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
218-01-9	Chrysene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
53-70-3	Dibenzo(a,h)anthracene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
206-44-0	Fluoranthene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
86-73-7	Fluorene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
85-01-8	Phenanthrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
108-95-2	Phenol	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
129-00-0	Pyrene	ND		mg/kg dry	0.0473	0.0943	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 18:23	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	79.3 %									
4165-62-2	Surrogate: Phenol-d5	106 %									
4165-60-0	Surrogate: Nitrobenzene-d5	134 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	81.0 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	84.9 %									
1718-51-0	Surrogate: Terphenyl-d14	73.9 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

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July 14, 2016 3:00 pm

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Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:38	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	98.4 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	78.8 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:08	AMC



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
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Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0188	0.0188	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 18:08	AMC
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	80.5 %		30-140							
2051-24-3	Surrogate: Decachlorobiphenyl	77.5 %		30-140							

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-39-3	Barium	18.0		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-47-3	Chromium	8.60		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-50-8	Copper	11.1		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7439-92-1	Lead	1.66		mg/kg dry	0.339	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7439-96-5	Manganese	292		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-02-0	Nickel	6.75		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7782-49-2	Selenium	2.18		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-22-4	Silver	ND		mg/kg dry	0.565	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV
7440-66-6	Zinc	14.5		mg/kg dry	1.13	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:16	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0339	0.0339	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 14:13	KV



Sample Information

Client Sample ID: SB-RI4 @ 11-13'

York Sample ID: 16G0570-08

York Project (SDG) No.
16G0570

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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.4		%	0.100	0.100	1	SM 2540G Certifications: CTDOH	07/22/2016 14:39	07/22/2016 17:13	TJM

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.396	0.565	1	EPA 7196A Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP	07/22/2016 09:58	07/22/2016 16:49	LAB

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	8.60		mg/kg	0.250	0.500	1	Calculation Certifications:	07/22/2016 16:57	07/22/2016 17:35	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.565	0.565	1	EPA 9014/9010C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/21/2016 09:01	07/21/2016 15:04	LAB

Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.2		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-34-3	1,1-Dichloroethane	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-35-4	1,1-Dichloroethylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
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July 14, 2016 3:00 pm

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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
95-50-1	1,2-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
107-06-2	1,2-Dichloroethane	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
108-67-8	1,3,5-Trimethylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
541-73-1	1,3-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
106-46-7	1,4-Dichlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
123-91-1	1,4-Dioxane	ND		mg/kg dry	7.0	14	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
78-93-3	2-Butanone	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
67-64-1	Acetone	0.76	SCAL- E, B, J	mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
71-43-2	Benzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
56-23-5	Carbon tetrachloride	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
108-90-7	Chlorobenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
67-66-3	Chloroform	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
156-59-2	cis-1,2-Dichloroethylene	0.54	J	mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
100-41-4	Ethyl Benzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
75-09-2	Methylene chloride	ND		mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
91-20-3	Naphthalene	ND		mg/kg dry	0.35	1.4	100	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
104-51-8	n-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
103-65-1	n-Propylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
95-47-6	o-Xylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 08:07	SS
179601-23-1	p- & m- Xylenes	ND		mg/kg dry	0.70	1.4	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854	07/21/2016 18:19	07/22/2016 08:07	SS
135-98-8	sec-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

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Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-06-6	tert-Butylbenzene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
127-18-4	Tetrachloroethylene	640		mg/kg dry	70	140	20000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 17:51	BK
108-88-3	Toluene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
156-60-5	trans-1,2-Dichloroethylene	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 18:19	07/22/2016 08:07	SS
79-01-6	Trichloroethylene	530		mg/kg dry	70	140	20000	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 17:51	BK
75-01-4	Vinyl Chloride	ND		mg/kg dry	0.35	0.70	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
1330-20-7	Xylenes, Total	ND		mg/kg dry	1.1	2.1	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 18:19	07/22/2016 08:07	SS
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	111 %				77-125					
2037-26-5	Surrogate: Toluene-d8	96.0 %				85-120					
460-00-4	Surrogate: p-Bromofluorobenzene	87.2 %				76-130					

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
65794-96-9	3- & 4-Methylphenols	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
83-32-9	Acenaphthene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
208-96-8	Acenaphthylene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
120-12-7	Anthracene	0.0807	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
56-55-3	Benzo(a)anthracene	0.503		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
50-32-8	Benzo(a)pyrene	0.476		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
205-99-2	Benzo(b)fluoranthene	0.582		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
191-24-2	Benzo(g,h,i)perylene	0.184		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
207-08-9	Benzo(k)fluoranthene	0.269		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
218-01-9	Chrysene	0.557		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
53-70-3	Dibenzo(a,h)anthracene	0.0653	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
132-64-9	Dibenzofuran	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
206-44-0	Fluoranthene	0.838		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
86-73-7	Fluorene	0.0876	J	mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
118-74-1	Hexachlorobenzene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
193-39-5	Indeno(1,2,3-cd)pyrene	0.172		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
91-20-3	Naphthalene	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
87-86-5	Pentachlorophenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
85-01-8	Phenanthrene	0.440		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
108-95-2	Phenol	ND		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
129-00-0	Pyrene	0.788		mg/kg dry	0.0482	0.0961	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 15:54	07/22/2016 19:26	SR
Surrogate Recoveries		Result		Acceptance Range							
367-12-4	Surrogate: 2-Fluorophenol	95.5 %									
4165-62-2	Surrogate: Phenol-d5	104 %									
4165-60-0	Surrogate: Nitrobenzene-d5	138 %	S-08								
321-60-8	Surrogate: 2-Fluorobiphenyl	81.2 %									
118-79-6	Surrogate: 2,4,6-Tribromophenol	82.6 %									
1718-51-0	Surrogate: Terphenyl-d14	75.1 %									

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
72-55-9	4,4'-DDE	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
50-29-3	4,4'-DDT	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
309-00-2	Aldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-84-6	alpha-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
5103-71-9	alpha-Chlordane	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: NELAC-NY10854,NJDEP	07/22/2016 15:37	07/24/2016 18:53	AMC
319-85-7	beta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
319-86-8	delta-BHC	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
60-57-1	Dieldrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
959-98-8	Endosulfan I	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
33213-65-9	Endosulfan II	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
1031-07-8	Endosulfan sulfate	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
72-20-8	Endrin	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
58-89-9	gamma-BHC (Lindane)	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
76-44-8	Heptachlor	ND		mg/kg dry	0.00165	0.00165	5	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:53	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	90.7 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	72.6 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/22/2016 15:37	07/24/2016 18:28	AMC
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0192	0.0192	1	EPA 8082A Certifications:	07/22/2016 15:37	07/24/2016 18:28	AMC



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.
16G0570

Client Project ID
255 Randolph Street

Matrix
Soil

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
Surrogate Recoveries		Result		Acceptance Range							
877-09-8	Surrogate: Tetrachloro-m-xylene	73.0 %				30-140					
2051-24-3	Surrogate: Decachlorobiphenyl	83.5 %				30-140					

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	36.6		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-39-3	Barium	936		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-41-7	Beryllium	0.226		mg/kg dry	0.115	0.115	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-43-9	Cadmium	ND		mg/kg dry	0.346	0.346	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-47-3	Chromium	23.6		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-50-8	Copper	93.9		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7439-92-1	Lead	518		mg/kg dry	0.346	0.346	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7439-96-5	Manganese	165		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-02-0	Nickel	16.0		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7782-49-2	Selenium	6.33		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-22-4	Silver	ND		mg/kg dry	0.576	0.576	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV
7440-66-6	Zinc	124		mg/kg dry	1.15	1.15	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/18/2016 09:49	07/19/2016 23:34	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.36		mg/kg dry	0.0346	0.0346	1	EPA 7473 Certifications: CTDOH,NJDEP,NELAC-NY10854,PADEP	07/19/2016 10:21	07/19/2016 14:22	KV

Total Solids

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: Soil Dup @ 0-2'

York Sample ID: 16G0570-09

York Project (SDG) No.

16G0570

Client Project ID

255 Randolph Street

Matrix

Soil

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	86.8		%	0.100	0.100	1	SM 2540G	07/22/2016 14:39	07/22/2016 17:13	TJM
Certifications: CTDOH											

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3060

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND		mg/kg dry	0.403	0.576	1	EPA 7196A	07/21/2016 09:10	07/21/2016 14:07	LAB
Certifications: NJDEP,CTDOH,NELAC-NY10854,PADEP											

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	23.6		mg/kg	0.250	0.500	1	Calculation	07/22/2016 16:57	07/22/2016 17:35	PAM
Certifications:											

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation Soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		mg/kg dry	0.576	0.576	1	EPA 9014/9010C	07/21/2016 09:01	07/21/2016 15:04	LAB
Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP											



Analytical Batch Summary

Batch ID: BG60728

Preparation Method: EPA 3050B

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/18/16
16G0570-02	SB-RI1 @ 10-12'	07/18/16
16G0570-03	SB-RI2 @ 0-2'	07/18/16
16G0570-04	SB-RI2 @ 11-13'	07/18/16
16G0570-05	SB-RI3 @ 0-2'	07/18/16
16G0570-06	SB-RI3 @ 11-13'	07/18/16
16G0570-07	SB-RI4 @ 0-2	07/18/16
16G0570-08	SB-RI4 @ 11-13'	07/18/16
16G0570-09	Soil Dup @ 0-2'	07/18/16
BG60728-BLK1	Blank	07/18/16
BG60728-DUP1	Duplicate	07/18/16
BG60728-MS1	Matrix Spike	07/18/16
BG60728-SRM1	Reference	07/18/16

Batch ID: BG60767

Preparation Method: EPA 7473 soil

Prepared By: ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/19/16
16G0570-02	SB-RI1 @ 10-12'	07/19/16
16G0570-03	SB-RI2 @ 0-2'	07/19/16
16G0570-04	SB-RI2 @ 11-13'	07/19/16
16G0570-05	SB-RI3 @ 0-2'	07/19/16
16G0570-06	SB-RI3 @ 11-13'	07/19/16
16G0570-07	SB-RI4 @ 0-2	07/19/16
16G0570-08	SB-RI4 @ 11-13'	07/19/16
16G0570-09	Soil Dup @ 0-2'	07/19/16
BG60767-BLK1	Blank	07/19/16
BG60767-DUP1	Duplicate	07/19/16
BG60767-MS1	Matrix Spike	07/19/16
BG60767-SRM1	Reference	07/19/16

Batch ID: BG60910

Preparation Method: EPA 5035A

Prepared By: BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/21/16
16G0570-02	SB-RI1 @ 10-12'	07/21/16
16G0570-03	SB-RI2 @ 0-2'	07/21/16
16G0570-04	SB-RI2 @ 11-13'	07/21/16
16G0570-05	SB-RI3 @ 0-2'	07/21/16
16G0570-06	SB-RI3 @ 11-13'	07/21/16
16G0570-07	SB-RI4 @ 0-2	07/21/16
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60910-BLK1	Blank	07/21/16
BG60910-BLK2	Blank	07/21/16



BG60910-BS1	LCS	07/21/16
BG60910-BSD1	LCS Dup	07/21/16
BG60910-MS1	Matrix Spike	07/21/16
BG60910-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60920 **Preparation Method:** Analysis Preparation Soil **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60920-BLK1	Blank	07/21/16
BG60920-DUP1	Duplicate	07/21/16
BG60920-MS1	Matrix Spike	07/21/16
BG60920-SRM1	Reference	07/21/16

Batch ID: BG60922 **Preparation Method:** EPA SW846-3060 **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60922-BLK1	Blank	07/21/16
BG60922-DUP1	Duplicate	07/21/16
BG60922-MS1	Matrix Spike	07/21/16
BG60922-SRM1	Reference	07/21/16

Batch ID: BG60953 **Preparation Method:** EPA 3550C **Prepared By:** KNN

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/21/16
16G0570-02	SB-RI1 @ 10-12'	07/21/16
16G0570-03	SB-RI2 @ 0-2'	07/21/16
16G0570-04	SB-RI2 @ 11-13'	07/21/16
16G0570-05	SB-RI3 @ 0-2'	07/21/16
16G0570-06	SB-RI3 @ 11-13'	07/21/16
16G0570-07	SB-RI4 @ 0-2'	07/21/16
16G0570-08	SB-RI4 @ 11-13'	07/21/16
16G0570-09	Soil Dup @ 0-2'	07/21/16
BG60953-BLK1	Blank	07/21/16
BG60953-BS1	LCS	07/21/16
BG60953-MS1	Matrix Spike	07/21/16
BG60953-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60980 **Preparation Method:** EPA 5035A **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01RE1	SB-RI1 @ 0-2'	07/22/16
16G0570-03RE1	SB-RI2 @ 0-2'	07/22/16
16G0570-04RE1	SB-RI2 @ 11-13'	07/22/16
16G0570-09RE1	Soil Dup @ 0-2'	07/22/16
BG60980-BLK1	Blank	07/22/16



BG60980-BLK2	Blank	07/22/16
BG60980-BS1	LCS	07/22/16
BG60980-BSD1	LCS Dup	07/22/16
BG60980-MS1	Matrix Spike	07/22/16
BG60980-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG60988 **Preparation Method:** Analysis Preparation Soil **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
BG60988-BLK1	Blank	07/22/16
BG60988-DUP1	Duplicate	07/22/16
BG60988-MS1	Matrix Spike	07/22/16
BG60988-SRM1	Reference	07/22/16

Batch ID: BG61015 **Preparation Method:** EPA SW846-3060 **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
BG61015-BLK1	Blank	07/22/16
BG61015-DUP1	Duplicate	07/22/16
BG61015-MS1	Matrix Spike	07/22/16
BG61015-SRM1	Reference	07/22/16

Batch ID: BG61026 **Preparation Method:** % Solids Prep **Prepared By:** TJM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
BG61026-DUP1	Duplicate	07/22/16



Batch ID: BG61029

Preparation Method: EPA 3550C

Prepared By: CM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16
BG61029-BLK1	Blank	07/22/16
BG61029-BLK2	Blank	07/22/16
BG61029-BS1	LCS	07/22/16
BG61029-BS2	LCS	07/22/16

Batch ID: BG61040

Preparation Method: Analysis Preparation

Prepared By: PAM

YORK Sample ID	Client Sample ID	Preparation Date
16G0570-01	SB-RI1 @ 0-2'	07/22/16
16G0570-02	SB-RI1 @ 10-12'	07/22/16
16G0570-03	SB-RI2 @ 0-2'	07/22/16
16G0570-04	SB-RI2 @ 11-13'	07/22/16
16G0570-05	SB-RI3 @ 0-2'	07/22/16
16G0570-06	SB-RI3 @ 11-13'	07/22/16
16G0570-07	SB-RI4 @ 0-2	07/22/16
16G0570-08	SB-RI4 @ 11-13'	07/22/16
16G0570-09	Soil Dup @ 0-2'	07/22/16



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Blank (BG60910-BLK1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	0.0050	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	44.1		ug/L	50.0		88.1	77-125				
Surrogate: Toluene-d8	51.0		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	46.0		"	50.0		92.1	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Blank (BG60910-BLK2)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	43.8		ug/L	50.0		87.5	77-125				
Surrogate: Toluene-d8	50.2		"	50.0		100	85-120				
Surrogate: p-Bromofluorobenzene	47.7		"	50.0		95.4	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

LCS (BG60910-BS1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	61		ug/L	50.0		121	71-137				
1,1-Dichloroethane	59		"	50.0		117	75-130				
1,1-Dichloroethylene	57		"	50.0		114	64-137				
1,2,4-Trimethylbenzene	57		"	50.0		115	84-125				
1,2-Dichlorobenzene	54		"	50.0		109	85-122				
1,2-Dichloroethane	58		"	50.0		116	71-133				
1,3,5-Trimethylbenzene	54		"	50.0		107	82-126				
1,3-Dichlorobenzene	53		"	50.0		106	84-124				
1,4-Dichlorobenzene	54		"	50.0		107	84-124				
1,4-Dioxane	2300		"	1000		226	10-228				
2-Butanone	54		"	50.0		108	58-147				
Acetone	52		"	50.0		105	36-155				
Benzene	58		"	50.0		115	77-127				
Carbon tetrachloride	59		"	50.0		117	66-143				
Chlorobenzene	53		"	50.0		107	86-120				
Chloroform	60		"	50.0		120	76-131				
cis-1,2-Dichloroethylene	58		"	50.0		117	74-132				
Ethyl Benzene	57		"	50.0		115	84-125				
Methyl tert-butyl ether (MTBE)	58		"	50.0		117	74-131				
Methylene chloride	58		"	50.0		115	57-141				
Naphthalene	55		"	50.0		110	86-141				
n-Butylbenzene	56		"	50.0		113	80-130				
n-Propylbenzene	54		"	50.0		107	74-136				
o-Xylene	53		"	50.0		106	83-123				
p- & m- Xylenes	110		"	100		110	82-128				
sec-Butylbenzene	54		"	50.0		108	83-125				
tert-Butylbenzene	55		"	50.0		110	80-127				
Tetrachloroethylene	59		"	50.0		117	80-129				
Toluene	56		"	50.0		112	85-121				
trans-1,2-Dichloroethylene	58		"	50.0		116	72-132				
Trichloroethylene	56		"	50.0		112	84-123				
Vinyl Chloride	43		"	50.0		85.8	52-130				
Surrogate: 1,2-Dichloroethane-d4	51.4		"	50.0		103	77-125				
Surrogate: Toluene-d8	50.8		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.7	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

LCS Dup (BG60910-BSD1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

1,1,1-Trichloroethane	59		ug/L	50.0		119	71-137		1.93	30
1,1-Dichloroethane	57		"	50.0		115	75-130		1.93	30
1,1-Dichloroethylene	50		"	50.0		99.3	64-137		13.7	30
1,2,4-Trimethylbenzene	56		"	50.0		111	84-125		2.96	30
1,2-Dichlorobenzene	53		"	50.0		107	85-122		1.86	30
1,2-Dichloroethane	56		"	50.0		112	71-133		3.38	30
1,3,5-Trimethylbenzene	53		"	50.0		107	82-126		0.468	30
1,3-Dichlorobenzene	53		"	50.0		105	84-124		0.380	30
1,4-Dichlorobenzene	54		"	50.0		107	84-124		0.0373	30
1,4-Dioxane	2400		"	1000		235	10-228	High Bias	4.13	30
2-Butanone	58		"	50.0		117	58-147		8.12	30
Acetone	59		"	50.0		117	36-155		11.3	30
Benzene	58		"	50.0		116	77-127		0.104	30
Carbon tetrachloride	58		"	50.0		117	66-143		0.188	30
Chlorobenzene	53		"	50.0		106	86-120		0.754	30
Chloroform	59		"	50.0		118	76-131		2.18	30
cis-1,2-Dichloroethylene	57		"	50.0		114	74-132		2.55	30
Ethyl Benzene	56		"	50.0		112	84-125		2.57	30
Methyl tert-butyl ether (MTBE)	58		"	50.0		116	74-131		1.08	30
Methylene chloride	56		"	50.0		111	57-141		3.32	30
Naphthalene	55		"	50.0		111	86-141		0.852	30
n-Butylbenzene	56		"	50.0		112	80-130		0.803	30
n-Propylbenzene	54		"	50.0		107	74-136		0.242	30
o-Xylene	54		"	50.0		108	83-123		1.64	30
p- & m- Xylenes	110		"	100		109	82-128		1.26	30
sec-Butylbenzene	53		"	50.0		107	83-125		1.32	30
tert-Butylbenzene	55		"	50.0		109	80-127		0.548	30
Tetrachloroethylene	57		"	50.0		114	80-129		2.42	30
Toluene	56		"	50.0		112	85-121		0.286	30
trans-1,2-Dichloroethylene	59		"	50.0		118	72-132		1.16	30
Trichloroethylene	55		"	50.0		110	84-123		2.43	30
Vinyl Chloride	44		"	50.0		87.8	52-130		2.24	30
Surrogate: 1,2-Dichloroethane-d4	50.6		"	50.0		101	77-125			
Surrogate: Toluene-d8	48.5		"	50.0		97.0	85-120			
Surrogate: p-Bromofluorobenzene	47.4		"	50.0		94.7	76-130			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Matrix Spike (BG60910-MS1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')						Prepared: 07/21/2016 Analyzed: 07/22/2016				
1,1,1-Trichloroethane	82		ug/L	50.0	2200	NR	42-145	Low Bias			
1,1-Dichloroethane	57		"	50.0	ND	114	46-142				
1,1-Dichloroethylene	42		"	50.0	ND	84.4	30-153				
1,2,4-Trimethylbenzene	54		"	50.0	ND	108	10-170				
1,2-Dichlorobenzene	51		"	50.0	ND	102	10-147				
1,2-Dichloroethane	58		"	50.0	ND	116	48-133				
1,3,5-Trimethylbenzene	49		"	50.0	ND	97.6	10-150				
1,3-Dichlorobenzene	52		"	50.0	ND	103	10-144				
1,4-Dichlorobenzene	53		"	50.0	ND	106	10-160				
1,4-Dioxane	2300		"	1000	ND	233	10-191	High Bias			
2-Butanone	57		"	50.0	120	NR	10-189	Low Bias			
Acetone	53		"	50.0	370	NR	10-196	Low Bias			
Benzene	57		"	50.0	ND	113	43-139				
Carbon tetrachloride	60		"	50.0	ND	120	35-145				
Chlorobenzene	51		"	50.0	ND	103	21-154				
Chloroform	58		"	50.0	ND	117	47-142				
cis-1,2-Dichloroethylene	59		"	50.0	ND	118	42-144				
Ethyl Benzene	55		"	50.0	ND	111	11-158				
Methyl tert-butyl ether (MTBE)	56		"	50.0	ND	113	42-152				
Methylene chloride	53		"	50.0	ND	107	28-151				
Naphthalene	53		"	50.0	ND	105	10-158				
n-Butylbenzene	55		"	50.0	ND	110	10-162				
n-Propylbenzene	51		"	50.0	ND	101	10-155				
o-Xylene	53		"	50.0	ND	106	10-158				
p- & m- Xylenes	110		"	100	ND	107	10-156				
sec-Butylbenzene	50		"	50.0	ND	101	10-157				
tert-Butylbenzene	54		"	50.0	ND	107	10-160				
Tetrachloroethylene	920		"	50.0	150000	NR	30-167	Low Bias			
Toluene	53		"	50.0	ND	107	21-160				
trans-1,2-Dichloroethylene	58		"	50.0	ND	116	29-153				
Trichloroethylene	310		"	50.0	34000	NR	24-169	Low Bias			
Vinyl Chloride	46		"	50.0	ND	91.9	12-160				
Surrogate: 1,2-Dichloroethane-d4	54.5		"	50.0		109	77-125				
Surrogate: Toluene-d8	48.9		"	50.0		97.8	85-120				
Surrogate: p-Bromofluorobenzene	48.4		"	50.0		96.9	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60910 - EPA 5035A

Matrix Spike Dup (BG60910-MSD1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')					Prepared: 07/21/2016 Analyzed: 07/22/2016					
1,1,1-Trichloroethane	81		ug/L	50.0	2200	NR	42-145	Low Bias	0.575	30	
1,1-Dichloroethane	58		"	50.0	ND	115	46-142		1.48	36	
1,1-Dichloroethylene	39		"	50.0	ND	77.1	30-153		8.94	31	
1,2,4-Trimethylbenzene	55		"	50.0	ND	111	10-170		2.04	242	
1,2-Dichlorobenzene	53		"	50.0	ND	106	10-147		4.10	52	
1,2-Dichloroethane	58		"	50.0	ND	117	48-133		1.15	32	
1,3,5-Trimethylbenzene	51		"	50.0	ND	102	10-150		4.60	62	
1,3-Dichlorobenzene	52		"	50.0	ND	105	10-144		1.52	51	
1,4-Dichlorobenzene	52		"	50.0	ND	103	10-160		2.73	52	
1,4-Dioxane	2200		"	1000	ND	223	10-191	High Bias	4.42	196	
2-Butanone	56		"	50.0	120	NR	10-189	Low Bias	2.73	67	
Acetone	49		"	50.0	370	NR	10-196	Low Bias	7.94	150	
Benzene	58		"	50.0	ND	116	43-139		1.85	64	
Carbon tetrachloride	60		"	50.0	ND	120	35-145		0.283	31	
Chlorobenzene	52		"	50.0	ND	105	21-154		1.72	32	
Chloroform	59		"	50.0	ND	118	47-142		0.869	29	
cis-1,2-Dichloroethylene	58		"	50.0	ND	115	42-144		2.52	30	
Ethyl Benzene	56		"	50.0	ND	113	11-158		1.81	42	
Methyl tert-butyl ether (MTBE)	57		"	50.0	ND	113	42-152		0.390	47	
Methylene chloride	54		"	50.0	ND	107	28-151		0.804	49	
Naphthalene	54		"	50.0	ND	108	10-158		2.70	95	
n-Butylbenzene	56		"	50.0	ND	112	10-162		2.34	96	
n-Propylbenzene	52		"	50.0	ND	104	10-155		3.09	56	
o-Xylene	54		"	50.0	ND	109	10-158		3.23	51	
p- & m- Xylenes	110		"	100	ND	110	10-156		2.38	47	
sec-Butylbenzene	53		"	50.0	ND	106	10-157		5.06	56	
tert-Butylbenzene	54		"	50.0	ND	109	10-160		1.41	79	
Tetrachloroethylene	970		"	50.0	150000	NR	30-167	Low Bias	4.95	33	
Toluene	53		"	50.0	ND	107	21-160		0.0750	50	
trans-1,2-Dichloroethylene	57		"	50.0	ND	115	29-153		1.35	30	
Trichloroethylene	320		"	50.0	34000	NR	24-169	Low Bias	3.24	30	
Vinyl Chloride	45		"	50.0	ND	89.7	12-160		2.42	35	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	53.5		"	50.0		107	77-125				
<i>Surrogate: Toluene-d8</i>	49.2		"	50.0		98.4	85-120				
<i>Surrogate: p-Bromofluorobenzene</i>	49.3		"	50.0		98.5	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Blank (BG60980-BLK1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	0.0040	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	47.0		ug/L	50.0		94.0	77-125				
Surrogate: Toluene-d8	51.9		"	50.0		104	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.6	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Blank (BG60980-BLK2)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.0050	mg/kg wet								
1,1-Dichloroethane	ND	0.0050	"								
1,1-Dichloroethylene	ND	0.0050	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,2-Dichlorobenzene	ND	0.0050	"								
1,2-Dichloroethane	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
1,3-Dichlorobenzene	ND	0.0050	"								
1,4-Dichlorobenzene	ND	0.0050	"								
1,4-Dioxane	ND	0.10	"								
2-Butanone	ND	0.0050	"								
Acetone	ND	0.010	"								
Benzene	ND	0.0050	"								
Carbon tetrachloride	ND	0.0050	"								
Chlorobenzene	ND	0.0050	"								
Chloroform	ND	0.0050	"								
cis-1,2-Dichloroethylene	ND	0.0050	"								
Ethyl Benzene	ND	0.0050	"								
Methyl tert-butyl ether (MTBE)	ND	0.0050	"								
Methylene chloride	ND	0.010	"								
Naphthalene	ND	0.010	"								
n-Butylbenzene	ND	0.0050	"								
n-Propylbenzene	ND	0.0050	"								
o-Xylene	ND	0.0050	"								
p- & m- Xylenes	ND	0.010	"								
sec-Butylbenzene	ND	0.0050	"								
tert-Butylbenzene	ND	0.0050	"								
Tetrachloroethylene	ND	0.0050	"								
Toluene	ND	0.0050	"								
trans-1,2-Dichloroethylene	ND	0.0050	"								
Trichloroethylene	ND	0.0050	"								
Vinyl Chloride	ND	0.0050	"								
Xylenes, Total	ND	0.015	"								
Surrogate: 1,2-Dichloroethane-d4	49.2		ug/L	50.0		98.5	77-125				
Surrogate: Toluene-d8	51.6		"	50.0		103	85-120				
Surrogate: p-Bromofluorobenzene	49.8		"	50.0		99.7	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

LCS (BG60980-BS1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	62		ug/L	50.0		124	71-137				
1,1-Dichloroethane	55		"	50.0		110	75-130				
1,1-Dichloroethylene	51		"	50.0		102	64-137				
1,2,4-Trimethylbenzene	59		"	50.0		118	84-125				
1,2-Dichlorobenzene	58		"	50.0		115	85-122				
1,2-Dichloroethane	56		"	50.0		111	71-133				
1,3,5-Trimethylbenzene	59		"	50.0		119	82-126				
1,3-Dichlorobenzene	57		"	50.0		114	84-124				
1,4-Dichlorobenzene	57		"	50.0		114	84-124				
1,4-Dioxane	750		"	1000		75.2	10-228				
2-Butanone	50		"	50.0		99.5	58-147				
Acetone	47		"	50.0		94.6	36-155				
Benzene	57		"	50.0		113	77-127				
Carbon tetrachloride	62		"	50.0		124	66-143				
Chlorobenzene	57		"	50.0		115	86-120				
Chloroform	58		"	50.0		116	76-131				
cis-1,2-Dichloroethylene	56		"	50.0		113	74-132				
Ethyl Benzene	58		"	50.0		116	84-125				
Methyl tert-butyl ether (MTBE)	55		"	50.0		110	74-131				
Methylene chloride	50		"	50.0		99.8	57-141				
Naphthalene	63		"	50.0		126	86-141				
n-Butylbenzene	57		"	50.0		114	80-130				
n-Propylbenzene	56		"	50.0		111	74-136				
o-Xylene	57		"	50.0		113	83-123				
p- & m- Xylenes	110		"	100		111	82-128				
sec-Butylbenzene	55		"	50.0		109	83-125				
tert-Butylbenzene	59		"	50.0		117	80-127				
Tetrachloroethylene	62		"	50.0		124	80-129				
Toluene	58		"	50.0		116	85-121				
trans-1,2-Dichloroethylene	52		"	50.0		103	72-132				
Trichloroethylene	61		"	50.0		123	84-123				
Vinyl Chloride	49		"	50.0		98.6	52-130				
Surrogate: 1,2-Dichloroethane-d4	48.5		"	50.0		97.0	77-125				
Surrogate: Toluene-d8	51.0		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	51.4		"	50.0		103	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

LCS Dup (BG60980-BSD1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	61		ug/L	50.0		122	71-137		1.62	30	
1,1-Dichloroethane	55		"	50.0		110	75-130		0.455	30	
1,1-Dichloroethylene	51		"	50.0		102	64-137		0.0980	30	
1,2,4-Trimethylbenzene	59		"	50.0		118	84-125		0.712	30	
1,2-Dichlorobenzene	57		"	50.0		114	85-122		0.908	30	
1,2-Dichloroethane	54		"	50.0		108	71-133		2.79	30	
1,3,5-Trimethylbenzene	59		"	50.0		119	82-126		0.0168	30	
1,3-Dichlorobenzene	57		"	50.0		114	84-124		0.527	30	
1,4-Dichlorobenzene	57		"	50.0		114	84-124		0.457	30	
1,4-Dioxane	650		"	1000		64.9	10-228		14.6	30	
2-Butanone	44		"	50.0		88.9	58-147		11.3	30	
Acetone	41		"	50.0		82.2	36-155		14.0	30	
Benzene	56		"	50.0		111	77-127		1.98	30	
Carbon tetrachloride	62		"	50.0		124	66-143		0.0161	30	
Chlorobenzene	56		"	50.0		112	86-120		2.28	30	
Chloroform	59		"	50.0		117	76-131		1.32	30	
cis-1,2-Dichloroethylene	59		"	50.0		117	74-132		3.77	30	
Ethyl Benzene	58		"	50.0		115	84-125		0.934	30	
Methyl tert-butyl ether (MTBE)	53		"	50.0		106	74-131		3.22	30	
Methylene chloride	50		"	50.0		100	57-141		0.400	30	
Naphthalene	60		"	50.0		121	86-141		4.20	30	
n-Butylbenzene	57		"	50.0		113	80-130		1.14	30	
n-Propylbenzene	57		"	50.0		115	74-136		3.31	30	
o-Xylene	56		"	50.0		113	83-123		0.372	30	
p- & m- Xylenes	110		"	100		111	82-128		0.180	30	
sec-Butylbenzene	56		"	50.0		111	83-125		1.43	30	
tert-Butylbenzene	59		"	50.0		119	80-127		1.53	30	
Tetrachloroethylene	61		"	50.0		123	80-129		0.682	30	
Toluene	58		"	50.0		117	85-121		0.619	30	
trans-1,2-Dichloroethylene	52		"	50.0		105	72-132		1.54	30	
Trichloroethylene	59		"	50.0		118	84-123		3.69	30	
Vinyl Chloride	49		"	50.0		98.5	52-130		0.102	30	
Surrogate: 1,2-Dichloroethane-d4	46.9		"	50.0		93.8	77-125				
Surrogate: Toluene-d8	50.8		"	50.0		102	85-120				
Surrogate: p-Bromofluorobenzene	53.1		"	50.0		106	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60980 - EPA 5035A

Matrix Spike (BG60980-MS1)	*Source sample: 16G0570-01RE1 (SB-RI1 @ 0-2')							Prepared & Analyzed: 07/22/2016			
1,1,1-Trichloroethane	60		ug/L	50.0	2400	NR	42-145	Low Bias			
1,1-Dichloroethane	51		"	50.0	ND	101	46-142				
1,1-Dichloroethylene	45		"	50.0	ND	89.8	30-153				
1,2,4-Trimethylbenzene	54		"	50.0	ND	109	10-170				
1,2-Dichlorobenzene	54		"	50.0	ND	108	10-147				
1,2-Dichloroethane	52		"	50.0	ND	105	48-133				
1,3,5-Trimethylbenzene	54		"	50.0	ND	108	10-150				
1,3-Dichlorobenzene	53		"	50.0	ND	107	10-144				
1,4-Dichlorobenzene	53		"	50.0	ND	106	10-160				
1,4-Dioxane	740		"	1000	ND	73.8	10-191				
2-Butanone	46		"	50.0	ND	91.0	10-189				
Acetone	41		"	50.0	9000	NR	10-196	Low Bias			
Benzene	52		"	50.0	ND	104	43-139				
Carbon tetrachloride	57		"	50.0	ND	113	35-145				
Chlorobenzene	54		"	50.0	ND	107	21-154				
Chloroform	56		"	50.0	ND	111	47-142				
cis-1,2-Dichloroethylene	54		"	50.0	ND	107	42-144				
Ethyl Benzene	54		"	50.0	ND	108	11-158				
Methyl tert-butyl ether (MTBE)	52		"	50.0	ND	104	42-152				
Methylene chloride	44		"	50.0	ND	88.2	28-151				
Naphthalene	58		"	50.0	ND	116	10-158				
n-Butylbenzene	52		"	50.0	ND	104	10-162				
n-Propylbenzene	53		"	50.0	ND	105	10-155				
o-Xylene	52		"	50.0	ND	105	10-158				
p- & m- Xylenes	110		"	100	ND	107	10-156				
sec-Butylbenzene	52		"	50.0	ND	104	10-157				
tert-Butylbenzene	55		"	50.0	ND	110	10-160				
Tetrachloroethylene	130		"	50.0	150000	NR	30-167	Low Bias			
Toluene	54		"	50.0	ND	109	21-160				
trans-1,2-Dichloroethylene	47		"	50.0	ND	94.5	29-153				
Trichloroethylene	72		"	50.0	34000	NR	24-169	Low Bias			
Vinyl Chloride	38		"	50.0	ND	76.5	12-160				
Surrogate: 1,2-Dichloroethane-d4	48.5		"	50.0		97.0	77-125				
Surrogate: Toluene-d8	51.7		"	50.0		103	85-120				
Surrogate: p-Bromofluorobenzene	51.7		"	50.0		103	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60980 - EPA 5035A											
Matrix Spike Dup (BG60980-MSD1)	*Source sample: 16G0570-01RE1 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
1,1,1-Trichloroethane	58		ug/L	50.0	2400	NR	42-145	Low Bias	3.64	30	
1,1-Dichloroethane	52		"	50.0	ND	103	46-142		1.70	36	
1,1-Dichloroethylene	40		"	50.0	ND	80.4	30-153		11.1	31	
1,2,4-Trimethylbenzene	54		"	50.0	ND	108	10-170		0.516	242	
1,2-Dichlorobenzene	55		"	50.0	ND	110	10-147		1.80	52	
1,2-Dichloroethane	53		"	50.0	ND	105	48-133		0.552	32	
1,3,5-Trimethylbenzene	56		"	50.0	ND	111	10-150		3.23	62	
1,3-Dichlorobenzene	53		"	50.0	ND	107	10-144		0.131	51	
1,4-Dichlorobenzene	53		"	50.0	ND	105	10-160		0.906	52	
1,4-Dioxane	790		"	1000	ND	78.7	10-191		6.48	196	
2-Butanone	45		"	50.0	ND	89.8	10-189		1.35	67	
Acetone	41		"	50.0	9000	NR	10-196	Low Bias	0.539	150	
Benzene	53		"	50.0	ND	107	43-139		2.65	64	
Carbon tetrachloride	58		"	50.0	ND	116	35-145		2.11	31	
Chlorobenzene	54		"	50.0	ND	109	21-154		1.22	32	
Chloroform	57		"	50.0	ND	114	47-142		1.96	29	
cis-1,2-Dichloroethylene	54		"	50.0	ND	107	42-144		0.131	30	
Ethyl Benzene	55		"	50.0	ND	109	11-158		1.22	42	
Methyl tert-butyl ether (MTBE)	51		"	50.0	ND	103	42-152		0.581	47	
Methylene chloride	45		"	50.0	ND	90.7	28-151		2.75	49	
Naphthalene	61		"	50.0	ND	121	10-158		4.16	95	
n-Butylbenzene	53		"	50.0	ND	105	10-162		0.956	96	
n-Propylbenzene	52		"	50.0	ND	104	10-155		1.28	56	
o-Xylene	53		"	50.0	ND	107	10-158		1.72	51	
p- & m- Xylenes	100		"	100	ND	105	10-156		2.46	47	
sec-Butylbenzene	52		"	50.0	ND	103	10-157		0.889	56	
tert-Butylbenzene	55		"	50.0	ND	110	10-160		0.0729	79	
Tetrachloroethylene	130		"	50.0	150000	NR	30-167	Low Bias	1.17	33	
Toluene	55		"	50.0	ND	110	21-160		0.751	50	
trans-1,2-Dichloroethylene	47		"	50.0	ND	94.8	29-153		0.338	30	
Trichloroethylene	71		"	50.0	34000	NR	24-169	Low Bias	1.36	30	
Vinyl Chloride	25		"	50.0	ND	50.0	12-160		41.9	35	Non-dir.
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>51.0</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>77-125</i>				
<i>Surrogate: Toluene-d8</i>	<i>51.2</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>85-120</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>51.2</i>		<i>"</i>	<i>50.0</i>		<i>102</i>	<i>70-130</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Blank (BG60953-BLK1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

2-Methylphenol	ND	0.0417	mg/kg wet								
3- & 4-Methylphenols	ND	0.0417	"								
Acenaphthene	ND	0.0417	"								
Acenaphthylene	ND	0.0417	"								
Anthracene	ND	0.0417	"								
Benzo(a)anthracene	ND	0.0417	"								
Benzo(a)pyrene	ND	0.0417	"								
Benzo(b)fluoranthene	ND	0.0417	"								
Benzo(g,h,i)perylene	ND	0.0417	"								
Benzo(k)fluoranthene	ND	0.0417	"								
Chrysene	ND	0.0417	"								
Dibenzo(a,h)anthracene	ND	0.0417	"								
Dibenzofuran	ND	0.0417	"								
Fluoranthene	ND	0.0417	"								
Fluorene	ND	0.0417	"								
Hexachlorobenzene	ND	0.0417	"								
Indeno(1,2,3-cd)pyrene	ND	0.0417	"								
Naphthalene	ND	0.0417	"								
Pentachlorophenol	ND	0.0417	"								
Phenanthrene	ND	0.0417	"								
Phenol	ND	0.0417	"								
Pyrene	ND	0.0417	"								
Surrogate: 2-Fluorophenol	2.15		"	2.51		85.6	20-108				
Surrogate: Phenol-d5	2.50		"	2.51		99.9	23-114				
Surrogate: Nitrobenzene-d5	2.07		"	1.67		123	22-108				
Surrogate: 2-Fluorobiphenyl	1.30		"	1.67		77.8	21-113				
Surrogate: 2,4,6-Tribromophenol	1.80		"	2.51		72.0	19-110				
Surrogate: Terphenyl-d14	1.15		"	1.67		69.0	24-116				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

LCS (BG60953-BS1)

Prepared: 07/21/2016 Analyzed: 07/22/2016

2-Methylphenol	1.08	0.0417	mg/kg wet	1.67		64.7	10-146				
3- & 4-Methylphenols	1.02	0.0417	"	1.67		61.0	20-109				
Acenaphthene	0.870	0.0417	"	1.67		52.2	17-124				
Acenaphthylene	0.857	0.0417	"	1.67		51.4	16-124				
Anthracene	0.984	0.0417	"	1.67		59.1	24-124				
Benzo(a)anthracene	1.03	0.0417	"	1.67		62.1	25-134				
Benzo(a)pyrene	1.01	0.0417	"	1.67		60.3	29-144				
Benzo(b)fluoranthene	0.807	0.0417	"	1.67		48.4	20-151				
Benzo(g,h,i)perylene	0.962	0.0417	"	1.67		57.7	10-153				
Benzo(k)fluoranthene	1.13	0.0417	"	1.67		68.0	10-148				
Chrysene	0.928	0.0417	"	1.67		55.7	24-116				
Dibenzo(a,h)anthracene	0.915	0.0417	"	1.67		54.9	17-147				
Dibenzofuran	0.824	0.0417	"	1.67		49.4	23-123				
Fluoranthene	1.00	0.0417	"	1.67		60.3	36-125				
Fluorene	0.984	0.0417	"	1.67		59.0	16-130				
Hexachlorobenzene	1.29	0.0417	"	1.67		77.4	10-129				
Indeno(1,2,3-cd)pyrene	0.957	0.0417	"	1.67		57.4	10-155				
Naphthalene	0.886	0.0417	"	1.67		53.2	20-121				
Pentachlorophenol	0.487	0.0417	"	1.67		29.2	10-143				
Phenanthrene	1.02	0.0417	"	1.67		61.2	24-123				
Phenol	1.10	0.0417	"	1.67		66.0	15-123				
Pyrene	1.03	0.0417	"	1.67		61.8	24-132				
<i>Surrogate: 2-Fluorophenol</i>	<i>1.64</i>		<i>"</i>	<i>2.51</i>		<i>65.2</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>2.12</i>		<i>"</i>	<i>2.51</i>		<i>84.6</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.61</i>		<i>"</i>	<i>1.67</i>		<i>96.3</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.936</i>		<i>"</i>	<i>1.67</i>		<i>56.0</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>1.53</i>		<i>"</i>	<i>2.51</i>		<i>61.0</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.892</i>		<i>"</i>	<i>1.67</i>		<i>53.3</i>	<i>24-116</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Matrix Spike (BG60953-MS1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')						Prepared: 07/21/2016 Analyzed: 07/22/2016				
2-Methylphenol	0.783	0.434	mg/kg dry	1.73	ND	45.2	10-160				
3- & 4-Methylphenols	0.631	0.434	"	1.73	ND	36.4	16-115				
Acenaphthene	0.658	0.434	"	1.73	ND	38.0	13-133				
Acenaphthylene	0.683	0.434	"	1.73	ND	39.4	25-125				
Anthracene	0.728	0.434	"	1.73	ND	42.0	27-128				
Benzo(a)anthracene	0.631	0.434	"	1.73	ND	36.4	20-147				
Benzo(a)pyrene	0.378	0.434	"	1.73	ND	21.8	18-153				
Benzo(b)fluoranthene	0.437	0.434	"	1.73	ND	25.2	10-163				
Benzo(g,h,i)perylene	0.308	0.434	"	1.73	ND	17.8	10-157				
Benzo(k)fluoranthene	0.561	0.434	"	1.73	ND	32.4	10-157				
Chrysene	1.05	0.434	"	1.73	ND	60.6	18-133				
Dibenzo(a,h)anthracene	0.284	0.434	"	1.73	ND	16.4	10-146				
Dibenzofuran	0.631	0.434	"	1.73	ND	36.4	26-134				
Fluoranthene	1.07	0.434	"	1.73	0.187	61.8	10-155				
Fluorene	1.01	0.434	"	1.73	ND	58.0	12-150				
Hexachlorobenzene	1.08	0.434	"	1.73	ND	62.4	16-142				
Indeno(1,2,3-cd)pyrene	0.302	0.434	"	1.73	ND	17.4	10-155				
Naphthalene	0.710	0.434	"	1.73	ND	41.0	15-132				
Pentachlorophenol	ND	0.434	"	1.73	ND		10-160	Low Bias			
Phenanthrene	0.925	0.434	"	1.73	ND	53.4	10-151				
Phenol	0.825	0.434	"	1.73	ND	47.6	11-124				
Pyrene	1.05	0.434	"	1.73	0.177	60.4	13-148				
<i>Surrogate: 2-Fluorophenol</i>	<i>0.749</i>		<i>"</i>	<i>2.61</i>		<i>28.6</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>1.55</i>		<i>"</i>	<i>2.61</i>		<i>59.6</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.63</i>		<i>"</i>	<i>1.74</i>		<i>93.8</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.801</i>		<i>"</i>	<i>1.74</i>		<i>46.0</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>1.21</i>		<i>"</i>	<i>2.61</i>		<i>46.3</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.710</i>		<i>"</i>	<i>1.74</i>		<i>40.8</i>	<i>24-116</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60953 - EPA 3550C

Matrix Spike Dup (BG60953-MSD1)	*Source sample: 16G0570-01 (SB-R11 @ 0-2')						Prepared: 07/21/2016 Analyzed: 07/22/2016				
2-Methylphenol	0.797	0.434	mg/kg dry	1.73	ND	46.0	10-160		1.75	30	
3- & 4-Methylphenols	0.617	0.434	"	1.73	ND	35.6	16-115		2.22	30	
Acenaphthene	0.634	0.434	"	1.73	ND	36.6	13-133		3.75	30	
Acenaphthylene	0.624	0.434	"	1.73	ND	36.0	25-125		9.02	30	
Anthracene	0.610	0.434	"	1.73	ND	35.2	27-128		17.6	30	
Benzo(a)anthracene	0.496	0.434	"	1.73	ND	28.6	20-147		24.0	30	
Benzo(a)pyrene	0.302	0.434	"	1.73	ND	17.4	18-153	Low Bias	22.4	30	
Benzo(b)fluoranthene	0.392	0.434	"	1.73	ND	22.6	10-163		10.9	30	
Benzo(g,h,i)perylene	0.402	0.434	"	1.73	ND	23.2	10-157		26.3	30	
Benzo(k)fluoranthene	0.482	0.434	"	1.73	ND	27.8	10-157		15.3	30	
Chrysene	0.950	0.434	"	1.73	ND	54.8	18-133		10.1	30	
Dibenzo(a,h)anthracene	0.267	0.434	"	1.73	ND	15.4	10-146		6.29	30	
Dibenzofuran	0.575	0.434	"	1.73	ND	33.2	26-134		9.20	30	
Fluoranthene	0.804	0.434	"	1.73	0.187	46.4	10-155		28.5	30	
Fluorene	0.984	0.434	"	1.73	ND	56.8	12-150		2.09	30	
Hexachlorobenzene	0.995	0.434	"	1.73	ND	57.4	16-142		8.35	30	
Indeno(1,2,3-cd)pyrene	0.243	0.434	"	1.73	ND	14.0	10-155		21.7	30	
Naphthalene	0.669	0.434	"	1.73	ND	38.6	15-132		6.03	30	
Pentachlorophenol	ND	0.434	"	1.73	ND		10-160	Low Bias		30	
Phenanthrene	0.787	0.434	"	1.73	ND	45.4	10-151		16.2	30	
Phenol	0.769	0.434	"	1.73	ND	44.4	11-124		6.96	30	
Pyrene	0.769	0.434	"	1.73	0.177	44.4	13-148		30.5	30	Non-dir.
<i>Surrogate: 2-Fluorophenol</i>	<i>0.873</i>		<i>"</i>	<i>2.61</i>		<i>33.4</i>	<i>20-108</i>				
<i>Surrogate: Phenol-d5</i>	<i>1.49</i>		<i>"</i>	<i>2.61</i>		<i>57.2</i>	<i>23-114</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.42</i>		<i>"</i>	<i>1.74</i>		<i>81.7</i>	<i>22-108</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.697</i>		<i>"</i>	<i>1.74</i>		<i>40.0</i>	<i>21-113</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>1.03</i>		<i>"</i>	<i>2.61</i>		<i>39.5</i>	<i>30-130</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.624</i>		<i>"</i>	<i>1.74</i>		<i>35.9</i>	<i>24-116</i>				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61029 - EPA 3550C

Blank (BG61029-BLK1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

4,4'-DDD	ND	0.000330	mg/kg wet
4,4'-DDE	ND	0.000330	"
4,4'-DDT	ND	0.000330	"
Aldrin	ND	0.000330	"
alpha-BHC	ND	0.000330	"
alpha-Chlordane	ND	0.000330	"
beta-BHC	ND	0.000330	"
delta-BHC	ND	0.000330	"
Dieldrin	ND	0.000330	"
Endosulfan I	ND	0.000330	"
Endosulfan II	ND	0.000330	"
Endosulfan sulfate	ND	0.000330	"
Endrin	ND	0.000330	"
gamma-BHC (Lindane)	ND	0.000330	"
Heptachlor	ND	0.000330	"

Surrogate: Decachlorobiphenyl

0.0501

"

0.0667

75.1

30-150

Surrogate: Tetrachloro-m-xylene

0.0429

"

0.0667

64.4

30-150

LCS (BG61029-BS1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

4,4'-DDD	0.0238	0.000330	mg/kg wet	0.0333	71.5	40-140
4,4'-DDE	0.0213	0.000330	"	0.0333	63.8	40-140
4,4'-DDT	0.0272	0.000330	"	0.0333	81.7	40-140
Aldrin	0.0234	0.000330	"	0.0333	70.3	40-140
alpha-BHC	0.0264	0.000330	"	0.0333	79.1	40-140
alpha-Chlordane	0.0229	0.000330	"	0.0333	68.6	40-140
beta-BHC	0.0249	0.000330	"	0.0333	74.7	40-140
delta-BHC	0.0256	0.000330	"	0.0333	76.7	40-140
Dieldrin	0.0246	0.000330	"	0.0333	73.7	40-140
Endosulfan I	0.0247	0.000330	"	0.0333	74.1	40-140
Endosulfan II	0.0269	0.000330	"	0.0333	80.6	40-140
Endosulfan sulfate	0.0272	0.000330	"	0.0333	81.7	40-140
Endrin	0.0262	0.000330	"	0.0333	78.5	40-140
gamma-BHC (Lindane)	0.0250	0.000330	"	0.0333	74.9	40-140
Heptachlor	0.0223	0.000330	"	0.0333	66.9	40-140

Surrogate: Decachlorobiphenyl

0.0452

"

0.0667

67.8

30-150

Surrogate: Tetrachloro-m-xylene

0.0397

"

0.0667

59.5

30-150



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch Y6G2531 - BG60939

Performance Mix (Y6G2531-PEM1)

Prepared & Analyzed: 07/24/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.265		"	0.00			0-200			
4,4'-DDT	119		"	200		59.3	0-200			
Endrin	74.9		"	100		74.9	0-200			

Performance Mix (Y6G2531-PEM2)

Prepared: 07/24/2016 Analyzed: 07/25/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200			
4,4'-DDE	0.478		"	0.00			0-200			
4,4'-DDT	156		"	200		78.1	0-200			
Endrin	103		"	100		103	0-200			



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61029 - EPA 3550C

Blank (BG61029-BLK2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

Aroclor 1016	ND	0.0167	mg/kg wet								
Aroclor 1221	ND	0.0167	"								
Aroclor 1232	ND	0.0167	"								
Aroclor 1242	ND	0.0167	"								
Aroclor 1248	ND	0.0167	"								
Aroclor 1254	ND	0.0167	"								
Aroclor 1260	ND	0.0167	"								
Total PCBs	ND	0.0167	"								

Surrogate: Tetrachloro-m-xylene	0.0373		"	0.0667		56.0	30-140				
Surrogate: Decachlorobiphenyl	0.0523		"	0.0667		78.5	30-140				

LCS (BG61029-BS2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

Aroclor 1016	0.195	0.0167	mg/kg wet	0.333		58.5	40-130				
Aroclor 1260	0.196	0.0167	"	0.333		58.9	40-130				
Surrogate: Tetrachloro-m-xylene	0.0377		"	0.0667		56.5	30-140				
Surrogate: Decachlorobiphenyl	0.0580		"	0.0667		87.0	30-140				



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60728 - EPA 3050B

Blank (BG60728-BLK1)

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	ND	1.00	mg/kg wet
Barium	ND	1.00	"
Beryllium	ND	0.100	"
Cadmium	ND	0.300	"
Chromium	ND	0.500	"
Copper	ND	0.500	"
Lead	ND	0.300	"
Manganese	ND	0.500	"
Nickel	ND	0.500	"
Selenium	ND	1.00	"
Silver	ND	0.500	"
Zinc	ND	1.00	"

Duplicate (BG60728-DUP1)

*Source sample: 16G0570-01 (SB-RI1 @ 0-2')

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	3.16	1.04	mg/kg dry	2.58	20.2	35
Barium	34.4	1.04	"	34.6	0.573	35
Beryllium	ND	0.104	"	ND		35
Cadmium	ND	0.312	"	ND		35
Chromium	10.3	0.520	"	10.4	0.891	35
Copper	23.8	0.520	"	25.3	5.82	35
Lead	36.2	0.312	"	36.3	0.159	35
Manganese	156	0.520	"	156	0.0868	35
Nickel	9.44	0.520	"	9.54	1.04	35
Selenium	1.23	1.04	"	ND		35
Silver	ND	0.520	"	ND		35
Zinc	31.9	1.04	"	32.2	1.08	35

Matrix Spike (BG60728-MS1)

*Source sample: 16G0570-01 (SB-RI1 @ 0-2')

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	203	1.04	mg/kg dry	208	2.58	96.4	75-125
Barium	232	1.04	"	208	34.6	95.1	75-125
Beryllium	5.02	0.104	"	5.20	ND	96.6	75-125
Cadmium	4.88	0.312	"	5.20	ND	93.9	75-125
Chromium	29.8	0.520	"	20.8	10.4	92.9	75-125
Copper	52.0	0.520	"	26.0	25.3	103	75-125
Lead	85.2	0.312	"	52.0	36.3	94.1	75-125
Manganese	216	0.520	"	52.0	156	115	75-125
Nickel	61.9	0.520	"	52.0	9.54	101	75-125
Silver	2.81	0.520	"	5.20	ND	54.1	75-125
Zinc	77.9	1.04	"	52.0	32.2	87.8	75-125

Low Bias



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60728 - EPA 3050B

Reference (BG60728-SRM1)

Prepared: 07/18/2016 Analyzed: 07/19/2016

Arsenic	101	1.00	mg/kg wet	113		89.4	69.7-142.5				
Barium	140	1.00	"	155		90.0	72.9-127.1				
Beryllium	96.4	0.100	"	109		88.4	74.7-124.8				
Cadmium	57.7	0.300	"	67.5		85.4	73.2-126.8				
Chromium	145	0.500	"	164		88.6	70.7-129.9				
Copper	120	0.500	"	128		94.0	75.2-125.8				
Lead	79.0	0.300	"	90.1		87.7	70.1-129.9				
Manganese	332	0.500	"	363		91.6	75.8-124.5				
Nickel	91.0	0.500	"	89.3		102	72-127.7				
Selenium	139	1.00	"	156		88.8	67.3-132.1				
Silver	19.2	0.500	"	52.6		36.5	66.7-133.5	Low Bias			
Zinc	137	1.00	"	168		81.5	69-131.5				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60767 - EPA 7473 soil											
Blank (BG60767-BLK1)											
								Prepared & Analyzed: 07/19/2016			
Mercury	ND	0.0300	mg/kg wet								
Duplicate (BG60767-DUP1)											
*Source sample: 16G0570-01 (SB-R11 @ 0-2')								Prepared & Analyzed: 07/19/2016			
Mercury	0.164	0.0312	mg/kg dry		0.162				1.34	35	
Matrix Spike (BG60767-MS1)											
*Source sample: 16G0570-01 (SB-R11 @ 0-2')								Prepared & Analyzed: 07/19/2016			
Mercury	0.750		mg/kg	0.500	0.156	119	75-125				
Reference (BG60767-SRM1)											
								Prepared & Analyzed: 07/19/2016			
Mercury	6.1801		mg/kg	5.76		107	71.2-129				



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61026 - % Solids Prep

Duplicate (BG61026-DUP1)		*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016			
% Solids	94.7	0.100	%		96.2				1.53	20	



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60920 - Analysis Preparation Soil											
Blank (BG60920-BLK1)						Prepared & Analyzed: 07/21/2016					
Cyanide, total	ND	0.500	mg/kg wet								
Duplicate (BG60920-DUP1)						*Source sample: 16G0570-08 (SB-RI4 @ 11-13') Prepared & Analyzed: 07/21/2016					
Cyanide, total	ND	0.565	mg/kg dry		ND					15	
Matrix Spike (BG60920-MS1)						*Source sample: 16G0570-08 (SB-RI4 @ 11-13') Prepared & Analyzed: 07/21/2016					
Cyanide, total	8.93	0.565	mg/kg dry	11.3	ND	79.0	79.6-107	Low Bias			
Reference (BG60920-SRM1)						Prepared & Analyzed: 07/21/2016					
Cyanide, total	43.0		ug/mL	53.9		79.8	37.5-163.7				
Batch BG60922 - EPA SW846-3060											
Blank (BG60922-BLK1)						Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	ND	0.500	mg/kg wet								
Duplicate (BG60922-DUP1)						*Source sample: 16G0570-09 (Soil Dup @ 0-2') Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	ND	0.576	mg/kg dry		ND					35	
Matrix Spike (BG60922-MS1)						*Source sample: 16G0570-09 (Soil Dup @ 0-2') Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	12.2	0.576	mg/kg dry	23.1	ND	53.0	75-125	Low Bias			
Reference (BG60922-SRM1)						Prepared & Analyzed: 07/21/2016					
Chromium, Hexavalent	71.0		mg/L	108		65.7	29.8-206				
Batch BG60988 - Analysis Preparation Soil											
Blank (BG60988-BLK1)						Prepared & Analyzed: 07/22/2016					
Cyanide, total	ND	0.500	mg/kg wet								



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60988 - Analysis Preparation Soil

Duplicate (BG60988-DUP1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Cyanide, total	ND	0.520	mg/kg dry		ND					15	
Matrix Spike (BG60988-MS1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Cyanide, total	7.95	0.520	mg/kg dry	10.4	ND	76.5	79.6-107	Low Bias			
Reference (BG60988-SRM1)							Prepared & Analyzed: 07/22/2016				
Cyanide, total	59.5		ug/mL	53.9		110	37.5-163.7				

Batch BG61015 - EPA SW846-3060

Blank (BG61015-BLK1)							Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	ND	0.500	mg/kg wet								
Duplicate (BG61015-DUP1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	ND	0.520	mg/kg dry		ND					35	
Matrix Spike (BG61015-MS1)	*Source sample: 16G0570-01 (SB-RI1 @ 0-2')						Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	17.5	0.520	mg/kg dry	20.8	ND	84.0	75-125				
Reference (BG61015-SRM1)							Prepared & Analyzed: 07/22/2016				
Chromium, Hexavalent	79.6		mg/L	108		73.7	29.8-206				



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16G0570-01	SB-RI1 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-02	SB-RI1 @ 10-12'	40mL Vial with Stir Bar-Cool 4° C
16G0570-03	SB-RI2 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-04	SB-RI2 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-05	SB-RI3 @ 0-2'	40mL Vial with Stir Bar-Cool 4° C
16G0570-06	SB-RI3 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-07	SB-RI4 @ 0-2	40mL Vial with Stir Bar-Cool 4° C
16G0570-08	SB-RI4 @ 11-13'	40mL Vial with Stir Bar-Cool 4° C
16G0570-09	Soil Dup @ 0-2'	40mL Vial with Stir Bar-Cool 4° C



Notes and Definitions

S-HI	Surrogate recovery is above acceptance limits. No target compound is detected in sample.
SCAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
S-08	The recovery of this surrogate was outside of QC limits.
QR-04	The RPD exceeded control limits for the LCS/LCSD QC.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-MISpk	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The SRM was within acceptance limits, therefore data are acceptable.
M-LSRD	Original sample conc <50 X reporting limit.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
IS-08	Recovery of this internal standard was outside QC limits.
IS-06	Internal standard perylene-d12 did not meet acceptance criteria. The sample was reanalyzed to confirm matrix interference. Compounds affected are: Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.
<hr/>	
*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.



High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.

For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

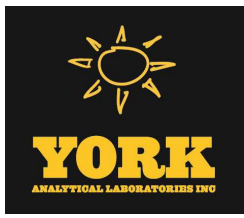
For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested. Your signature binds you to York's Std. Terms & Conditions.

York Project No. 166057G

[illegible]



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0638

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/25/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0638

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 18, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0638-01	MW-1	Water	07/18/2016	07/18/2016
16G0638-02	MW-2	Water	07/18/2016	07/18/2016
16G0638-03	MW-3	Water	07/18/2016	07/18/2016
16G0638-04	MW-4	Water	07/18/2016	07/18/2016
16G0638-05	Equipment Blank	Water	07/18/2016	07/18/2016
16G0638-06	GW Dupe	Water	07/18/2016	07/18/2016
16G0638-07	Trip Blank	Water	07/18/2016	07/18/2016

General Notes for York Project (SDG) No.: 16G0638

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/25/2016





Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	65		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-34-3	1,1-Dichloroethane	0.59		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-35-4	1,1-Dichloroethylene	1.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
107-06-2	1,2-Dichloroethane	0.59	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
108-90-7	Chlorobenzene	0.43	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
67-66-3	Chloroform	1.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
156-59-2	cis-1,2-Dichloroethylene	5.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 18:42	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 18:42	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
127-18-4	Tetrachloroethylene	1700		ug/L	10	25	50	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:04	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
79-01-6	Trichloroethylene	790		ug/L	10	25	50	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:04	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 18:42	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	94.8 %			69-130						
2037-26-5	Surrogate: Toluene-d8	91.8 %			81-117						
460-00-4	Surrogate: p-Bromofluorobenzene	109 %			79-122						

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
83-32-9	Acenaphthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
120-12-7	Anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
218-01-9	Chrysene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
132-64-9	Dibenzofuran	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
206-44-0	Fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
86-73-7	Fluorene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0229	0.0229	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
91-20-3	Naphthalene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
85-01-8	Phenanthrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
108-95-2	Phenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:02	KH
129-00-0	Pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:33	SR
Surrogate Recoveries		Result			Acceptance Range						
367-12-4	Surrogate: 2-Fluorophenol	26.4 %			12-64						
4165-62-2	Surrogate: Phenol-d5	16.9 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	84.4 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	74.2 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	106 %	S-08		15-104						
1718-51-0	Surrogate: Terphenyl-d14	58.1 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

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Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-55-9	4,4'-DDE	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
309-00-2	Aldrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-85-7	beta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
319-86-8	delta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
60-57-1	Dieldrin	ND		ug/L	0.00235	0.00235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
72-20-8	Endrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
76-44-8	Heptachlor	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 19:33	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	72.0 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	55.6 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11097-69-1	Aroclor 1254	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:17	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:17	AMC
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	66.0 %			30-120						
2051-24-3	Surrogate: Decachlorobiphenyl	96.5 %			30-120						

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-39-3	Barium	58		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-50-8	Copper	18		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7439-96-5	Manganese	187		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV
7440-66-6	Zinc	25		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:23	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	0.060		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-50-8	Copper	0.046		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7439-96-5	Manganese	0.207		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV
7440-66-6	Zinc	0.037		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:39	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW-1

York Sample ID: 16G0638-01

York Project (SDG) No.

Client Project ID

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16G0638

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Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.7		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-34-3	1,1-Dichloroethane	0.27	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
107-06-2	1,2-Dichloroethane	0.62	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
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255 Randolph Street

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July 18, 2016 1:00 pm

Date Received
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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
56-23-5	Carbon tetrachloride	2.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
67-66-3	Chloroform	1.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
156-59-2	cis-1,2-Dichloroethylene	1.6		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:08	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:08	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
127-18-4	Tetrachloroethylene	150		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
79-01-6	Trichloroethylene	89		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 19:08	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	95.0 %	69-130								
2037-26-5	Surrogate: Toluene-d8	92.5 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	109 %	79-122								



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
83-32-9	Acenaphthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
120-12-7	Anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
218-01-9	Chrysene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
132-64-9	Dibenzofuran	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
206-44-0	Fluoranthene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
86-73-7	Fluorene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0229	0.0229	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
91-20-3	Naphthalene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.286	0.286	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
85-01-8	Phenanthrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
108-95-2	Phenol	ND		ug/L	2.86	5.71	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 02:35	KH
129-00-0	Pyrene	ND		ug/L	0.0571	0.0571	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:04	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	18.5 %	12-64								



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	12.0 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	62.3 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	61.9 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	98.3 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	59.5 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
60-57-1	Dieldrin	ND		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:18	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	76.1 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	64.4 %	30-150								



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:36	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:36	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	77.5 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-120								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-39-3	Barium	41		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-50-8	Copper	27		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7439-96-5	Manganese	232		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV



Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV
7440-66-6	Zinc	41		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 15:54	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-39-3	Barium	0.043		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-50-8	Copper	0.025		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7439-96-5	Manganese	0.221		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV
7440-66-6	Zinc	0.029		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 15:57	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: MW-2

York Sample ID: 16G0638-02

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	1.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-34-3	1,1-Dichloroethane	1.9		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-35-4	1,1-Dichloroethylene	4.7		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-50-1	1,2-Dichlorobenzene	0.50		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
107-06-2	1,2-Dichloroethane	0.61	B	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
67-66-3	Chloroform	0.62		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
156-59-2	cis-1,2-Dichloroethylene	230		ug/L	2.0	5.0	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:32	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:34	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/21/2016 08:15	07/21/2016 19:34	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	540		ug/L	2.0	5.0	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/22/2016 21:32	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
156-60-5	trans-1,2-Dichloroethylene	6.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
79-01-6	Trichloroethylene	70		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/21/2016 08:15	07/21/2016 19:34	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	94.3 %	69-130								
2037-26-5	Surrogate: Toluene-d8	91.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	110 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
83-32-9	Acenaphthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
120-12-7	Anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
218-01-9	Chrysene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
206-44-0	Fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
86-73-7	Fluorene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0235	0.0235	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
91-20-3	Naphthalene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.294	0.294	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
85-01-8	Phenanthrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
108-95-2	Phenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:07	KH
129-00-0	Pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:35	SR
Surrogate Recoveries		Result			Acceptance Range						
367-12-4	Surrogate: 2-Fluorophenol	23.2 %			12-64						
4165-62-2	Surrogate: Phenol-d5	15.1 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	71.1 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	66.2 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	98.2 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	53.8 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
60-57-1	Dieldrin	0.00548		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:33	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	53.5 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	57.6 %	30-150								

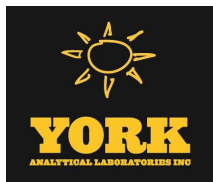
Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 19:56	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 19:56	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	63.0 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	84.0 %	30-120								



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-39-3	Barium	67		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-47-3	Chromium	10		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-50-8	Copper	27		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7439-92-1	Lead	7		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7439-96-5	Manganese	1520		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-02-0	Nickel	6		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV
7440-66-6	Zinc	42		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:00	KV

Metals, NYSDEC Part 375 - Dissolved

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-39-3	Barium	0.035		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-50-8	Copper	0.020		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7439-96-5	Manganese	1.40		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV



Sample Information

Client Sample ID: MW-3

York Sample ID: 16G0638-03

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV
7440-66-6	Zinc	0.023		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:02	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	10.0		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-34-3	1,1-Dichloroethane	14		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
67-64-1	Acetone	1.5	J, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
156-59-2	cis-1,2-Dichloroethylene	9.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:00	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:00	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
127-18-4	Tetrachloroethylene	3.1		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
156-60-5	trans-1,2-Dichloroethylene	0.24	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
79-01-6	Trichloroethylene	0.25	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
75-01-4	Vinyl Chloride	42		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:00	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %	69-130								
2037-26-5	Surrogate: Toluene-d8	96.8 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	105 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
83-32-9	Acenaphthene	0.144		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
208-96-8	Acenaphthylene	0.0556		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
120-12-7	Anthracene	0.0889		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
218-01-9	Chrysene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
132-64-9	Dibenzofuran	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
206-44-0	Fluoranthene	0.0667		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
86-73-7	Fluorene	0.100		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0222	0.0222	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
91-20-3	Naphthalene	0.156		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.278	0.278	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
85-01-8	Phenanthrene	0.400		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
108-95-2	Phenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 03:40	KH
129-00-0	Pyrene	0.100		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:06	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	18.6 %	12-64								
4165-62-2	Surrogate: Phenol-d5	12.2 %	10-82								
4165-60-0	Surrogate: Nitrobenzene-d5	64.7 %	12-96								
321-60-8	Surrogate: 2-Fluorobiphenyl	62.1 %	16-84								
118-79-6	Surrogate: 2,4,6-Tribromophenol	97.4 %	15-104								
1718-51-0	Surrogate: Terphenyl-d14	52.2 %	15-106								

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-55-9	4,4'-DDE	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
309-00-2	Aldrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-85-7	beta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
319-86-8	delta-BHC	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
60-57-1	Dieldrin	ND		ug/L	0.00229	0.00229	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
72-20-8	Endrin	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
76-44-8	Heptachlor	ND		ug/L	0.00457	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 20:48	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	54.1 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	64.8 %	30-150								

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:15	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0571	0.0571	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:15	AMC
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	59.5 %			30-120						
2051-24-3	Surrogate: Decachlorobiphenyl	58.5 %			30-120						

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-39-3	Barium	27		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-50-8	Copper	17		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7439-92-1	Lead	85		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7439-96-5	Manganese	1140		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV
7440-66-6	Zinc	45		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:04	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

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Water

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July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-39-3	Barium	0.012		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-50-8	Copper	0.017		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7439-96-5	Manganese	1.12		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV
7440-66-6	Zinc	0.017		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:07	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: MW-4

York Sample ID: 16G0638-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

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16G0638

255 Randolph Street

Water

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Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/25/2016 08:31	07/25/2016 16:05	AD

Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

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255 Randolph Street

Water

July 18, 2016 1:00 pm

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Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
67-64-1	Acetone	1.3	J, B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

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Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:28	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:28	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:28	BK

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130
2037-26-5	Surrogate: Toluene-d8	95.7 %	81-117
460-00-4	Surrogate: p-Bromofluorobenzene	104 %	79-122



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
83-32-9	Acenaphthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
120-12-7	Anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
218-01-9	Chrysene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
132-64-9	Dibenzofuran	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
206-44-0	Fluoranthene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
86-73-7	Fluorene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0235	0.0235	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
91-20-3	Naphthalene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.294	0.294	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
85-01-8	Phenanthrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
108-95-2	Phenol	ND		ug/L	2.94	5.88	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:12	KH
129-00-0	Pyrene	ND		ug/L	0.0588	0.0588	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:36	SR
Surrogate Recoveries		Result	Acceptance Range								
367-12-4	Surrogate: 2-Fluorophenol	17.4 %	12-64								



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4165-62-2	Surrogate: Phenol-d5	11.1 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	59.4 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	58.3 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	85.8 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	49.9 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
309-00-2	Aldrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-85-7	beta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
319-86-8	delta-BHC	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
60-57-1	Dieldrin	ND		ug/L	0.00235	0.00235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
72-20-8	Endrin	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
76-44-8	Heptachlor	ND		ug/L	0.00471	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:03	AMC
Surrogate Recoveries		Result	Acceptance Range								
2051-24-3	Surrogate: Decachlorobiphenyl	89.7 %	30-150								
877-09-8	Surrogate: Tetrachloro-m-xylene	79.1 %	30-150								



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:34	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0588	0.0588	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:34	AMC
Surrogate Recoveries		Result	Acceptance Range								
877-09-8	Surrogate: Tetrachloro-m-xylene	83.0 %	30-120								
2051-24-3	Surrogate: Decachlorobiphenyl	86.0 %	30-120								

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-39-3	Barium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-50-8	Copper	13		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7439-96-5	Manganese	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV



Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

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Date Received
07/18/2016

Metals, NYSDEC Part 375

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV
7440-66-6	Zinc	23		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:09	KV

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-39-3	Barium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-50-8	Copper	0.014		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7439-96-5	Manganese	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV
7440-66-6	Zinc	0.021		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:13	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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Sample Information

Client Sample ID: Equipment Blank

York Sample ID: 16G0638-05

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 08:19	07/20/2016 15:29	LAB

Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	7.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-34-3	1,1-Dichloroethane	0.27	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
56-23-5	Carbon tetrachloride	2.3		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
67-66-3	Chloroform	1.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
156-59-2	cis-1,2-Dichloroethylene	1.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:55	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 22:55	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	140		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
79-01-6	Trichloroethylene	87		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 22:55	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %	69-130								
2037-26-5	Surrogate: Toluene-d8	94.3 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	104 %	79-122								

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-48-7	2-Methylphenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
83-32-9	Acenaphthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
208-96-8	Acenaphthylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
120-12-7	Anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
218-01-9	Chrysene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Semi-Volatiles, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
206-44-0	Fluoranthene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
86-73-7	Fluorene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
118-74-1	Hexachlorobenzene	ND		ug/L	0.0222	0.0222	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
91-20-3	Naphthalene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.278	0.278	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
85-01-8	Phenanthrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
108-95-2	Phenol	ND		ug/L	2.78	5.56	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 04:45	KH
129-00-0	Pyrene	ND		ug/L	0.0556	0.0556	1	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 16:41	07/24/2016 05:07	SR
Surrogate Recoveries		Result			Acceptance Range						
367-12-4	Surrogate: 2-Fluorophenol	20.3 %			12-64						
4165-62-2	Surrogate: Phenol-d5	13.8 %			10-82						
4165-60-0	Surrogate: Nitrobenzene-d5	66.5 %			12-96						
321-60-8	Surrogate: 2-Fluorobiphenyl	65.8 %			16-84						
118-79-6	Surrogate: 2,4,6-Tribromophenol	95.0 %			15-104						
1718-51-0	Surrogate: Terphenyl-d14	54.2 %			15-106						

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
72-55-9	4,4'-DDE	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
50-29-3	4,4'-DDT	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
309-00-2	Aldrin	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
319-84-6	alpha-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
5103-71-9	alpha-Chlordane	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Pesticides, NYSDEC Part 375 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
319-85-7	beta-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
319-86-8	delta-BHC	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
60-57-1	Dieldrin	ND		ug/L	0.00222	0.00222	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
959-98-8	Endosulfan I	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
33213-65-9	Endosulfan II	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
72-20-8	Endrin	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
76-44-8	Heptachlor	ND		ug/L	0.00444	0.00444	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 18:03	07/21/2016 21:18	AMC
Surrogate Recoveries		Result			Acceptance Range						
2051-24-3	Surrogate: Decachlorobiphenyl	71.8 %			30-150						
877-09-8	Surrogate: Tetrachloro-m-xylene	72.1 %			30-150						

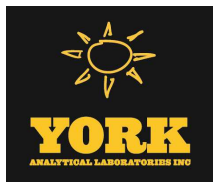
Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11104-28-2	Aroclor 1221	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11141-16-5	Aroclor 1232	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
53469-21-9	Aroclor 1242	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
12672-29-6	Aroclor 1248	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11097-69-1	Aroclor 1254	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
11096-82-5	Aroclor 1260	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 18:03	07/22/2016 20:54	AMC
1336-36-3	* Total PCBs	ND		ug/L	0.0556	0.0556	1	EPA 8082A Certifications:	07/20/2016 18:03	07/22/2016 20:54	AMC
Surrogate Recoveries		Result			Acceptance Range						
877-09-8	Surrogate: Tetrachloro-m-xylene	79.0 %			30-120						
2051-24-3	Surrogate: Decachlorobiphenyl	79.5 %			30-120						



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.

16G0638

Client Project ID

255 Randolph Street

Matrix

Water

Collection Date/Time

July 18, 2016 1:00 pm

Date Received

07/18/2016

Metals, NYSDEC Part 375

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/L	4	4	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-39-3	Barium	42		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-41-7	Beryllium	ND		ug/L	1	1	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-43-9	Cadmium	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-47-3	Chromium	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-50-8	Copper	12		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7439-92-1	Lead	ND		ug/L	3	3	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7439-96-5	Manganese	236		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-02-0	Nickel	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7782-49-2	Selenium	ND		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-22-4	Silver	ND		ug/L	6	6	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV
7440-66-6	Zinc	22		ug/L	11	11	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/21/2016 10:35	07/21/2016 16:14	KV

Metals, NYSDEC Part 375 - Dissolved

Sample Prepared by Method: EPA 3015A

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/L	0.004	0.004	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-39-3	Barium	0.043		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-41-7	Beryllium	ND		mg/L	0.001	0.001	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-43-9	Cadmium	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-47-3	Chromium	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-50-8	Copper	0.013		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7439-92-1	Lead	ND		mg/L	0.003	0.003	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7439-96-5	Manganese	0.239		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV



Sample Information

Client Sample ID: GW Dupe

York Sample ID: 16G0638-06

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Metals, NYSDEC Part 375 - Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-02-0	Nickel	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7782-49-2	Selenium	ND		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-22-4	Silver	ND		mg/L	0.006	0.006	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV
7440-66-6	Zinc	0.158		mg/L	0.011	0.011	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/22/2016 10:09	07/22/2016 16:18	KV

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		ug/L	0.20	0.20	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Mercury by 7473, Dissolved

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/20/2016 06:33	07/20/2016 14:39	ALD

Chromium, Hexavalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
18540-29-9	Chromium, Hexavalent	ND	HT-01	ug/L	10.0	10.0	1	EPA 7196A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/19/2016 20:02	07/19/2016 20:29	TJM

Chromium, Trivalent

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
16065-83-1	* Chromium, Trivalent	ND		ug/L	8.00	10.0	1	Calculation Certifications:	07/25/2016 15:36	07/25/2016 15:49	PAM

Cyanide, Total

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-12-5	Cyanide, total	ND		ug/L	10.0	10.0	1	SM 4500 CN C/E Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/20/2016 08:19	07/20/2016 15:29	LAB



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 16G0638-07

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
123-91-1	1,4-Dioxane	ND		ug/L	40	80	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
78-93-3	2-Butanone	ND		ug/L	0.80	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
67-64-1	Acetone	2.1	B	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 16G0638-07

York Project (SDG) No.
16G0638

Client Project ID
255 Randolph Street

Matrix
Water

Collection Date/Time
July 18, 2016 1:00 pm

Date Received
07/18/2016

Volatile Organics, NYSDEC Part 375 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 23:23	BK
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: NELAC-NY10854	07/22/2016 17:31	07/22/2016 23:23	BK
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
1330-20-7	* Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NJDEP	07/22/2016 17:31	07/22/2016 23:23	BK
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	104 %	69-130								
2037-26-5	Surrogate: Toluene-d8	96.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	106 %	79-122								



Analytical Batch Summary

Batch ID: BG60817 **Preparation Method:** Analysis Preparation **Prepared By:** TJM

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/19/16
16G0638-02	MW-2	07/19/16
16G0638-03	MW-3	07/19/16
16G0638-04	MW-4	07/19/16
16G0638-05	Equipment Blank	07/19/16
16G0638-06	GW Dupe	07/19/16
BG60817-BLK1	Blank	07/19/16
BG60817-BS1	LCS	07/19/16
BG60817-DUP1	Duplicate	07/19/16
BG60817-MS1	Matrix Spike	07/19/16

Batch ID: BG60821 **Preparation Method:** EPA 7473 water **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-04	MW-4	07/20/16
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60821-BLK1	Blank	07/20/16
BG60821-DUP1	Duplicate	07/20/16
BG60821-MS1	Matrix Spike	07/20/16
BG60821-SRM1	Reference	07/20/16

Batch ID: BG60842 **Preparation Method:** Analysis Preparation **Prepared By:** LAB

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60842-BLK1	Blank	07/20/16
BG60842-SRM1	Reference	07/20/16

Batch ID: BG60892 **Preparation Method:** EPA SW846-3510C Low Level **Prepared By:** RDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/20/16
16G0638-01	MW-1	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-02	MW-2	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-03	MW-3	07/20/16
16G0638-04	MW-4	07/20/16
16G0638-04	MW-4	07/20/16



16G0638-05	Equipment Blank	07/20/16
16G0638-05	Equipment Blank	07/20/16
16G0638-06	GW Dupe	07/20/16
16G0638-06	GW Dupe	07/20/16
BG60892-BLK1	Blank	07/20/16
BG60892-BLK2	Blank	07/20/16
BG60892-BS1	LCS	07/20/16
BG60892-BS2	LCS	07/20/16
BG60892-MS1	Matrix Spike	07/20/16
BG60892-MSD1	Matrix Spike Dup	07/20/16

Batch ID: BG60916 **Preparation Method:** EPA 5030B **Prepared By:** BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/21/16
16G0638-02	MW-2	07/21/16
16G0638-03	MW-3	07/21/16
BG60916-BLK1	Blank	07/21/16
BG60916-BS1	LCS	07/21/16
BG60916-BSD1	LCS Dup	07/21/16
BG60916-MS1	Matrix Spike	07/21/16
BG60916-MSD1	Matrix Spike Dup	07/21/16

Batch ID: BG60930 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/21/16
16G0638-02	MW-2	07/21/16
16G0638-03	MW-3	07/21/16
16G0638-04	MW-4	07/21/16
16G0638-05	Equipment Blank	07/21/16
16G0638-06	GW Dupe	07/21/16
BG60930-BLK1	Blank	07/21/16
BG60930-DUP1	Duplicate	07/21/16
BG60930-MS1	Matrix Spike	07/21/16
BG60930-SRM1	Reference	07/21/16

Batch ID: BG61006 **Preparation Method:** EPA 3015A **Prepared By:** ALD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/22/16
16G0638-02	MW-2	07/22/16
16G0638-03	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
BG61006-BLK1	Blank	07/22/16
BG61006-DUP1	Duplicate	07/22/16
BG61006-MS1	Matrix Spike	07/22/16
BG61006-SRM1	Reference	07/22/16



Batch ID: BG61024

Preparation Method: EPA 3510C

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/22/16
16G0638-02	MW-2	07/22/16
16G0638-03	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
BG61024-BLK1	Blank	07/22/16
BG61024-BLK2	Blank	07/22/16
BG61024-BS1	LCS	07/22/16
BG61024-BS2	LCS	07/22/16
BG61024-MS1	Matrix Spike	07/22/16
BG61024-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG61035

Preparation Method: EPA 5030B

Prepared By: BGS

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01RE1	MW-1	07/22/16
16G0638-03RE1	MW-3	07/22/16
16G0638-04	MW-4	07/22/16
16G0638-05	Equipment Blank	07/22/16
16G0638-06	GW Dupe	07/22/16
16G0638-07	Trip Blank	07/22/16
BG61035-BLK1	Blank	07/22/16
BG61035-BS1	LCS	07/22/16
BG61035-BSD1	LCS Dup	07/22/16
BG61035-MS1	Matrix Spike	07/22/16
BG61035-MSD1	Matrix Spike Dup	07/22/16

Batch ID: BG61073

Preparation Method: Analysis Preparation

Prepared By: AD

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/25/16
16G0638-02	MW-2	07/25/16
16G0638-03	MW-3	07/25/16
16G0638-04	MW-4	07/25/16
BG61073-BLK1	Blank	07/25/16
BG61073-BS1	LCS	07/25/16
BG61073-DUP1	Duplicate	07/25/16
BG61073-MS1	Matrix Spike	07/25/16

Batch ID: BG61129

Preparation Method: Analysis Preparation

Prepared By: PAM

YORK Sample ID	Client Sample ID	Preparation Date
16G0638-01	MW-1	07/25/16
16G0638-02	MW-2	07/25/16



16G0638-03	MW-3	07/25/16
16G0638-04	MW-4	07/25/16
16G0638-05	Equipment Blank	07/25/16
16G0638-06	GW Dupe	07/25/16



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

Blank (BG60916-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	0.61	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	0.36	0.50	"								
Acetone	ND	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	9.61		"	10.0		96.1	69-130				
Surrogate: Toluene-d8	9.32		"	10.0		93.2	81-117				
Surrogate: p-Bromofluorobenzene	11.0		"	10.0		110	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

LCS (BG60916-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	12		ug/L	10.0		119	78-136				
1,1-Dichloroethane	12		"	10.0		120	82-129				
1,1-Dichloroethylene	12		"	10.0		124	68-138				
1,2,4-Trimethylbenzene	12		"	10.0		122	82-132				
1,2-Dichlorobenzene	11		"	10.0		106	79-123				
1,2-Dichloroethane	10		"	10.0		104	73-132				
1,3,5-Trimethylbenzene	13		"	10.0		126	80-131				
1,3-Dichlorobenzene	11		"	10.0		108	86-122				
1,4-Dichlorobenzene	11		"	10.0		109	85-124				
1,4-Dioxane	120		"	200		58.9	10-349				
2-Butanone	11		"	10.0		110	49-152				
Acetone	17		"	10.0		169	14-150	High Bias			
Benzene	12		"	10.0		120	85-126				
Carbon tetrachloride	11		"	10.0		114	77-141				
Chlorobenzene	9.9		"	10.0		98.6	88-120				
Chloroform	12		"	10.0		121	82-128				
cis-1,2-Dichloroethylene	11		"	10.0		113	83-129				
Ethyl Benzene	11		"	10.0		110	80-131				
Methyl tert-butyl ether (MTBE)	6.1		"	10.0		61.0	76-135	Low Bias			
Methylene chloride	10		"	10.0		103	55-137				
Naphthalene	10		"	10.0		105	70-147				
n-Butylbenzene	12		"	10.0		124	79-132				
n-Propylbenzene	12		"	10.0		119	78-133				
o-Xylene	10		"	10.0		103	78-130				
p- & m- Xylenes	22		"	20.0		110	77-133				
sec-Butylbenzene	12		"	10.0		118	79-137				
tert-Butylbenzene	11		"	10.0		113	77-138				
Tetrachloroethylene	17		"	10.0		174	82-131	High Bias			
Toluene	11		"	10.0		110	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		118	80-132				
Trichloroethylene	11		"	10.0		110	82-128				
Vinyl Chloride	11		"	10.0		106	58-145				
Surrogate: 1,2-Dichloroethane-d4	9.34		"	10.0		93.4	69-130				
Surrogate: Toluene-d8	9.22		"	10.0		92.2	81-117				
Surrogate: p-Bromofluorobenzene	10.8		"	10.0		108	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60916 - EPA 5030B											
LCS Dup (BG60916-BSD1)						Prepared & Analyzed: 07/21/2016					
1,1,1-Trichloroethane	12		ug/L	10.0		117	78-136		1.69	30	
1,1-Dichloroethane	12		"	10.0		119	82-129		1.26	30	
1,1-Dichloroethylene	12		"	10.0		120	68-138		3.45	30	
1,2,4-Trimethylbenzene	12		"	10.0		120	82-132		2.31	30	
1,2-Dichlorobenzene	10		"	10.0		104	79-123		1.33	30	
1,2-Dichloroethane	11		"	10.0		108	73-132		4.34	30	
1,3,5-Trimethylbenzene	12		"	10.0		124	80-131		2.32	30	
1,3-Dichlorobenzene	11		"	10.0		107	86-122		1.58	30	
1,4-Dichlorobenzene	11		"	10.0		106	85-124		2.14	30	
1,4-Dioxane	110		"	200		56.9	10-349		3.42	30	
2-Butanone	11		"	10.0		105	49-152		4.74	30	
Acetone	12		"	10.0		121	14-150		33.1	30	Non-dir.
Benzene	12		"	10.0		118	85-126		1.43	30	
Carbon tetrachloride	11		"	10.0		113	77-141		0.440	30	
Chlorobenzene	9.9		"	10.0		98.9	88-120		0.304	30	
Chloroform	12		"	10.0		117	82-128		3.20	30	
cis-1,2-Dichloroethylene	11		"	10.0		113	83-129		0.443	30	
Ethyl Benzene	11		"	10.0		111	80-131		0.272	30	
Methyl tert-butyl ether (MTBE)	8.1		"	10.0		81.3	76-135		28.5	30	
Methylene chloride	10		"	10.0		102	55-137		1.27	30	
Naphthalene	11		"	10.0		114	70-147		7.96	30	
n-Butylbenzene	12		"	10.0		120	79-132		3.43	30	
n-Propylbenzene	12		"	10.0		116	78-133		2.04	30	
o-Xylene	10		"	10.0		102	78-130		0.390	30	
p- & m- Xylenes	22		"	20.0		110	77-133		0.136	30	
sec-Butylbenzene	11		"	10.0		114	79-137		3.96	30	
tert-Butylbenzene	11		"	10.0		110	77-138		2.96	30	
Tetrachloroethylene	11		"	10.0		114	82-131		41.9	30	Non-dir.
Toluene	11		"	10.0		109	80-127		0.183	30	
trans-1,2-Dichloroethylene	12		"	10.0		118	80-132		0.338	30	
Trichloroethylene	11		"	10.0		107	82-128		2.76	30	
Vinyl Chloride	10		"	10.0		102	58-145		3.26	30	
Surrogate: 1,2-Dichloroethane-d4	9.29		"	10.0		92.9	69-130				
Surrogate: Toluene-d8	9.32		"	10.0		93.2	81-117				
Surrogate: p-Bromofluorobenzene	10.7		"	10.0		107	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60916 - EPA 5030B

Matrix Spike (BG60916-MS1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/21/2016				
1,1,1-Trichloroethane	88		ug/L	10.0	65	230	70-146	High Bias			
1,1-Dichloroethane	12		"	10.0	0.59	113	54-146				
1,1-Dichloroethylene	13		"	10.0	1.2	114	44-165				
1,2,4-Trimethylbenzene	11		"	10.0	ND	109	72-129				
1,2-Dichlorobenzene	9.6		"	10.0	ND	95.7	63-122				
1,2-Dichloroethane	11		"	10.0	0.59	101	68-131				
1,3,5-Trimethylbenzene	11		"	10.0	ND	112	69-126				
1,3-Dichlorobenzene	9.7		"	10.0	ND	96.7	74-119				
1,4-Dichlorobenzene	9.6		"	10.0	ND	96.4	70-124				
1,4-Dioxane	140		"	200	ND	70.2	10-310				
2-Butanone	10		"	10.0	ND	102	10-193				
Acetone	9.0		"	10.0	ND	90.3	13-149				
Benzene	11		"	10.0	ND	114	38-155				
Carbon tetrachloride	13		"	10.0	ND	127	71-146				
Chlorobenzene	9.7		"	10.0	0.43	92.5	81-117				
Chloroform	13		"	10.0	1.8	114	80-124				
cis-1,2-Dichloroethylene	17		"	10.0	5.2	116	76-125				
Ethyl Benzene	10		"	10.0	ND	102	72-128				
Methyl tert-butyl ether (MTBE)	9.2		"	10.0	ND	92.2	75-128				
Methylene chloride	9.4		"	10.0	ND	94.2	57-128				
Naphthalene	9.0		"	10.0	ND	89.5	39-158				
n-Butylbenzene	11		"	10.0	ND	106	61-138				
n-Propylbenzene	11		"	10.0	ND	105	66-134				
o-Xylene	9.5		"	10.0	ND	94.9	69-126				
p- & m- Xylenes	20		"	20.0	ND	101	67-130				
sec-Butylbenzene	10		"	10.0	ND	105	53-155				
tert-Butylbenzene	10		"	10.0	ND	102	65-139				
Tetrachloroethylene	890		"	10.0	1700	NR	64-139	Low Bias			
Toluene	11		"	10.0	ND	105	76-123				
trans-1,2-Dichloroethylene	12		"	10.0	ND	115	79-131				
Trichloroethylene	1100		"	10.0	790	NR	53-145	High Bias			
Vinyl Chloride	8.0		"	10.0	ND	80.5	31-165				
Surrogate: 1,2-Dichloroethane-d4	9.53		"	10.0		95.3	69-130				
Surrogate: Toluene-d8	9.42		"	10.0		94.2	81-117				
Surrogate: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60916 - EPA 5030B											
Matrix Spike Dup (BG60916-MSD1)	*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/21/2016				
1,1,1-Trichloroethane	82		ug/L	10.0	65	176	70-146	High Bias	6.35	30	
1,1-Dichloroethane	12		"	10.0	0.59	112	54-146		1.52	30	
1,1-Dichloroethylene	12		"	10.0	1.2	112	44-165		1.61	30	
1,2,4-Trimethylbenzene	11		"	10.0	ND	109	72-129		0.368	30	
1,2-Dichlorobenzene	9.6		"	10.0	ND	95.6	63-122		0.105	30	
1,2-Dichloroethane	10		"	10.0	0.59	97.1	68-131		3.53	30	
1,3,5-Trimethylbenzene	11		"	10.0	ND	112	69-126		0.268	30	
1,3-Dichlorobenzene	9.6		"	10.0	ND	96.0	74-119		0.727	30	
1,4-Dichlorobenzene	9.6		"	10.0	ND	95.9	70-124		0.520	30	
1,4-Dioxane	93		"	200	ND	46.5	10-310		40.7	30	Non-dir.
2-Butanone	9.5		"	10.0	ND	94.9	10-193		6.82	30	
Acetone	8.3		"	10.0	ND	83.0	13-149		8.42	30	
Benzene	11		"	10.0	ND	112	38-155		1.24	30	
Carbon tetrachloride	13		"	10.0	ND	128	71-146		0.940	30	
Chlorobenzene	9.6		"	10.0	0.43	92.1	81-117		0.414	30	
Chloroform	13		"	10.0	1.8	112	80-124		1.61	30	
cis-1,2-Dichloroethylene	16		"	10.0	5.2	111	76-125		3.07	30	
Ethyl Benzene	10		"	10.0	ND	102	72-128		0.196	30	
Methyl tert-butyl ether (MTBE)	10		"	10.0	ND	101	75-128		9.21	30	
Methylene chloride	9.4		"	10.0	ND	93.7	57-128		0.532	30	
Naphthalene	11		"	10.0	ND	107	39-158		17.5	30	
n-Butylbenzene	11		"	10.0	ND	108	61-138		2.06	30	
n-Propylbenzene	11		"	10.0	ND	105	66-134		0.190	30	
o-Xylene	9.6		"	10.0	ND	95.6	69-126		0.735	30	
p- & m- Xylenes	20		"	20.0	ND	101	67-130		0.148	30	
sec-Butylbenzene	11		"	10.0	ND	107	53-155		1.51	30	
tert-Butylbenzene	10		"	10.0	ND	103	65-139		0.488	30	
Tetrachloroethylene	810		"	10.0	1700	NR	64-139	Low Bias	9.17	30	
Toluene	10		"	10.0	ND	105	76-123		0.380	30	
trans-1,2-Dichloroethylene	11		"	10.0	ND	113	79-131		1.93	30	
Trichloroethylene	1000		"	10.0	790	NR	53-145	High Bias	3.79	30	
Vinyl Chloride	8.6		"	10.0	ND	85.5	31-165		6.02	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>9.30</i>		<i>"</i>	<i>10.0</i>		<i>93.0</i>	<i>69-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>9.39</i>		<i>"</i>	<i>10.0</i>		<i>93.9</i>	<i>81-117</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.4</i>		<i>"</i>	<i>10.0</i>		<i>104</i>	<i>79-122</i>				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Blank (BG61035-BLK1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	ND	0.50	ug/L								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
1,4-Dioxane	ND	80	"								
2-Butanone	1.3	2.0	"								
Acetone	1.9	2.0	"								
Benzene	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroform	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
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Surrogate: 1,2-Dichloroethane-d4	10.3		"	10.0		103	69-130				
Surrogate: Toluene-d8	9.59		"	10.0		95.9	81-117				
Surrogate: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

LCS (BG61035-BS1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	12		ug/L	10.0		119	78-136				
1,1-Dichloroethane	13		"	10.0		133	82-129	High Bias			
1,1-Dichloroethylene	12		"	10.0		121	68-138				
1,2,4-Trimethylbenzene	11		"	10.0		109	82-132				
1,2-Dichlorobenzene	9.8		"	10.0		97.8	79-123				
1,2-Dichloroethane	12		"	10.0		119	73-132				
1,3,5-Trimethylbenzene	11		"	10.0		108	80-131				
1,3-Dichlorobenzene	9.9		"	10.0		99.2	86-122				
1,4-Dichlorobenzene	9.6		"	10.0		96.3	85-124				
1,4-Dioxane	220		"	200		109	10-349				
2-Butanone	9.5		"	10.0		95.1	49-152				
Acetone	12		"	10.0		122	14-150				
Benzene	12		"	10.0		122	85-126				
Carbon tetrachloride	12		"	10.0		120	77-141				
Chlorobenzene	10		"	10.0		104	88-120				
Chloroform	12		"	10.0		122	82-128				
cis-1,2-Dichloroethylene	12		"	10.0		120	83-129				
Ethyl Benzene	11		"	10.0		114	80-131				
Methyl tert-butyl ether (MTBE)	11		"	10.0		110	76-135				
Methylene chloride	12		"	10.0		115	55-137				
Naphthalene	8.7		"	10.0		86.7	70-147				
n-Butylbenzene	11		"	10.0		110	79-132				
n-Propylbenzene	11		"	10.0		106	78-133				
o-Xylene	11		"	10.0		108	78-130				
p- & m- Xylenes	23		"	20.0		115	77-133				
sec-Butylbenzene	10		"	10.0		100	79-137				
tert-Butylbenzene	10		"	10.0		100	77-138				
Tetrachloroethylene	10		"	10.0		103	82-131				
Toluene	11		"	10.0		111	80-127				
trans-1,2-Dichloroethylene	12		"	10.0		121	80-132				
Trichloroethylene	11		"	10.0		105	82-128				
Vinyl Chloride	12		"	10.0		124	58-145				
Surrogate: 1,2-Dichloroethane-d4	10.2		"	10.0		102	69-130				
Surrogate: Toluene-d8	9.63		"	10.0		96.3	81-117				
Surrogate: p-Bromofluorobenzene	9.97		"	10.0		99.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

LCS Dup (BG61035-BSD1)

Prepared & Analyzed: 07/22/2016

1,1,1-Trichloroethane	12		ug/L	10.0		120	78-136		0.251	30	
1,1-Dichloroethane	13		"	10.0		133	82-129	High Bias	0.225	30	
1,1-Dichloroethylene	12		"	10.0		120	68-138		0.912	30	
1,2,4-Trimethylbenzene	11		"	10.0		111	82-132		1.36	30	
1,2-Dichlorobenzene	9.8		"	10.0		98.3	79-123		0.510	30	
1,2-Dichloroethane	12		"	10.0		120	73-132		0.919	30	
1,3,5-Trimethylbenzene	11		"	10.0		110	80-131		1.56	30	
1,3-Dichlorobenzene	10		"	10.0		99.8	86-122		0.603	30	
1,4-Dichlorobenzene	9.8		"	10.0		98.5	85-124		2.26	30	
1,4-Dioxane	200		"	200		99.9	10-349		8.28	30	
2-Butanone	9.5		"	10.0		95.0	49-152		0.105	30	
Acetone	11		"	10.0		109	14-150		10.8	30	
Benzene	12		"	10.0		123	85-126		1.06	30	
Carbon tetrachloride	12		"	10.0		120	77-141		0.500	30	
Chlorobenzene	10		"	10.0		104	88-120		0.0965	30	
Chloroform	12		"	10.0		123	82-128		0.735	30	
cis-1,2-Dichloroethylene	12		"	10.0		120	83-129		0.500	30	
Ethyl Benzene	11		"	10.0		114	80-131		0.0874	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		111	76-135		0.723	30	
Methylene chloride	11		"	10.0		114	55-137		1.13	30	
Naphthalene	8.7		"	10.0		86.8	70-147		0.115	30	
n-Butylbenzene	11		"	10.0		110	79-132		0.273	30	
n-Propylbenzene	11		"	10.0		105	78-133		0.0948	30	
o-Xylene	11		"	10.0		107	78-130		1.02	30	
p- & m- Xylenes	23		"	20.0		114	77-133		0.743	30	
sec-Butylbenzene	10		"	10.0		102	79-137		0.990	30	
tert-Butylbenzene	10		"	10.0		101	77-138		0.794	30	
Tetrachloroethylene	10		"	10.0		103	82-131		0.485	30	
Toluene	11		"	10.0		110	80-127		0.631	30	
trans-1,2-Dichloroethylene	12		"	10.0		122	80-132		1.15	30	
Trichloroethylene	11		"	10.0		105	82-128		0.0951	30	
Vinyl Chloride	13		"	10.0		126	58-145		1.68	30	
Surrogate: 1,2-Dichloroethane-d4	10.1		"	10.0		101	69-130				
Surrogate: Toluene-d8	9.51		"	10.0		95.1	81-117				
Surrogate: p-Bromofluorobenzene	10.0		"	10.0		100	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Matrix Spike (BG61035-MS1)	*Source sample: 16G0638-01RE1 (MW-1)						Prepared: 07/22/2016 Analyzed: 07/23/2016				
1,1,1-Trichloroethane	13		ug/L	10.0	50	NR	70-146	Low Bias			
1,1-Dichloroethane	13		"	10.0	ND	132	54-146				
1,1-Dichloroethylene	12		"	10.0	ND	125	44-165				
1,2,4-Trimethylbenzene	11		"	10.0	ND	107	72-129				
1,2-Dichlorobenzene	9.2		"	10.0	ND	92.3	63-122				
1,2-Dichloroethane	11		"	10.0	ND	115	68-131				
1,3,5-Trimethylbenzene	10		"	10.0	ND	100	69-126				
1,3-Dichlorobenzene	9.2		"	10.0	ND	91.7	74-119				
1,4-Dichlorobenzene	9.1		"	10.0	ND	90.8	70-124				
1,4-Dioxane	190		"	200	ND	93.3	10-310				
2-Butanone	10		"	10.0	28	NR	10-193	Low Bias			
Acetone	11		"	10.0	ND	110	13-149				
Benzene	12		"	10.0	ND	122	38-155				
Carbon tetrachloride	12		"	10.0	ND	123	71-146				
Chlorobenzene	9.9		"	10.0	ND	98.7	81-117				
Chloroform	12		"	10.0	ND	122	80-124				
cis-1,2-Dichloroethylene	12		"	10.0	ND	116	76-125				
Ethyl Benzene	11		"	10.0	ND	107	72-128				
Methyl tert-butyl ether (MTBE)	11		"	10.0	ND	114	75-128				
Methylene chloride	11		"	10.0	ND	110	57-128				
Naphthalene	9.4		"	10.0	ND	94.4	39-158				
n-Butylbenzene	9.7		"	10.0	ND	97.0	61-138				
n-Propylbenzene	10		"	10.0	ND	100	66-134				
o-Xylene	10		"	10.0	ND	103	69-126				
p- & m- Xylenes	21		"	20.0	ND	107	67-130				
sec-Butylbenzene	9.8		"	10.0	ND	97.9	53-155				
tert-Butylbenzene	9.8		"	10.0	ND	97.7	65-139				
Tetrachloroethylene	43		"	10.0	1700	NR	64-139	Low Bias			
Toluene	10		"	10.0	ND	105	76-123				
trans-1,2-Dichloroethylene	12		"	10.0	ND	124	79-131				
Trichloroethylene	25		"	10.0	790	NR	53-145	Low Bias			
Vinyl Chloride	9.9		"	10.0	ND	98.8	31-165				
Surrogate: 1,2-Dichloroethane-d4	10.1		"	10.0		101	69-130				
Surrogate: Toluene-d8	9.39		"	10.0		93.9	81-117				
Surrogate: p-Bromofluorobenzene	9.97		"	10.0		99.7	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61035 - EPA 5030B

Matrix Spike Dup (BG61035-MSD1)	*Source sample: 16G0638-01RE1 (MW-1)					Prepared: 07/22/2016 Analyzed: 07/23/2016					
1,1,1-Trichloroethane	13		ug/L	10.0	50	NR	70-146	Low Bias	4.99	30	
1,1-Dichloroethane	13		"	10.0	ND	127	54-146		3.86	30	
1,1-Dichloroethylene	12		"	10.0	ND	119	44-165		4.59	30	
1,2,4-Trimethylbenzene	10		"	10.0	ND	103	72-129		3.91	30	
1,2-Dichlorobenzene	8.9		"	10.0	ND	88.6	63-122			30	
1,2-Dichloroethane	11		"	10.0	ND	106	68-131		7.69	30	
1,3,5-Trimethylbenzene	10		"	10.0	ND	101	69-126		0.595	30	
1,3-Dichlorobenzene	9.0		"	10.0	ND	89.7	74-119			30	
1,4-Dichlorobenzene	8.8		"	10.0	ND	88.5	70-124			30	
1,4-Dioxane	160		"	200	ND	79.0	10-310			30	
2-Butanone	8.5		"	10.0	28	NR	10-193	Low Bias		30	
Acetone	11		"	10.0	ND	105	13-149			30	
Benzene	12		"	10.0	ND	118	38-155		3.34	30	
Carbon tetrachloride	12		"	10.0	ND	120	71-146		2.97	30	
Chlorobenzene	9.5		"	10.0	ND	95.1	81-117			30	
Chloroform	12		"	10.0	ND	115	80-124		5.50	30	
cis-1,2-Dichloroethylene	11		"	10.0	ND	111	76-125		4.85	30	
Ethyl Benzene	10		"	10.0	ND	104	72-128		2.74	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0	ND	107	75-128		6.36	30	
Methylene chloride	10		"	10.0	ND	104	57-128			30	
Naphthalene	8.8		"	10.0	ND	87.6	39-158			30	
n-Butylbenzene	9.6		"	10.0	ND	96.0	61-138			30	
n-Propylbenzene	9.7		"	10.0	ND	97.3	66-134		3.14	30	
o-Xylene	9.8		"	10.0	ND	98.0	69-126		4.68	30	
p- & m- Xylenes	21		"	20.0	ND	104	67-130			30	
sec-Butylbenzene	9.5		"	10.0	ND	95.1	53-155			30	
tert-Butylbenzene	9.6		"	10.0	ND	95.7	65-139			30	
Tetrachloroethylene	40		"	10.0	1700	NR	64-139	Low Bias	8.22	30	
Toluene	10		"	10.0	ND	102	76-123		2.13	30	
trans-1,2-Dichloroethylene	12		"	10.0	ND	119	79-131		4.21	30	
Trichloroethylene	24		"	10.0	790	NR	53-145	Low Bias	6.92	30	
Vinyl Chloride	9.3		"	10.0	ND	93.4	31-165			30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>9.83</i>		<i>"</i>	<i>10.0</i>		<i>98.3</i>	<i>69-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>9.39</i>		<i>"</i>	<i>10.0</i>		<i>93.9</i>	<i>81-117</i>				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>79-122</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Blank (BG61024-BLK1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L								
3- & 4-Methylphenols	ND	5.00	"								
Acenaphthene	ND	0.0500	"								
Acenaphthylene	ND	0.0500	"								
Anthracene	ND	0.0500	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Dibenzofuran	ND	5.00	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Naphthalene	ND	0.0500	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Phenol	ND	5.00	"								
Pyrene	ND	0.0500	"								
Surrogate: 2-Fluorophenol	18.6		"	75.2		24.8	12-64				
Surrogate: Phenol-d5	12.5		"	75.0		16.7	10-82				
Surrogate: Nitrobenzene-d5	34.2		"	50.3		68.0	12-96				
Surrogate: 2-Fluorobiphenyl	32.8		"	50.1		65.5	16-84				
Surrogate: 2,4,6-Tribromophenol	67.1		"	75.2		89.2	15-104				
Surrogate: Terphenyl-d14	25.7		"	50.0		51.4	15-106				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Blank (BG61024-BLK2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L								
3- & 4-Methylphenols	ND	5.00	"								
Acenaphthene	ND	0.0500	"								
Acenaphthylene	ND	0.0500	"								
Anthracene	ND	0.0500	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Dibenzofuran	ND	5.00	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Naphthalene	ND	0.0500	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Phenol	ND	5.00	"								
Pyrene	ND	0.0500	"								
<i>Surrogate: 2-Fluorophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>0.00</i>		<i>"</i>	<i>75.0</i>			<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.00</i>		<i>"</i>	<i>50.3</i>			<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.00</i>		<i>"</i>	<i>50.1</i>			<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.00</i>		<i>"</i>	<i>50.0</i>			<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

LCS (BG61024-BS1)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	20.4	5.00	ug/L	50.0		40.7	10-90				
3- & 4-Methylphenols	17.9	5.00	"	50.0		35.9	10-101				
Acenaphthene	33.5	0.0500	"	50.0		67.0	24-114				
Acenaphthylene	31.8	0.0500	"	50.0		63.5	26-112				
Anthracene	33.7	0.0500	"	50.0		67.4	35-114				
Benzo(a)anthracene	38.0	0.0500	"	50.0		75.9	38-127				
Benzo(a)pyrene	63.2	0.0500	"	50.0		126	30-146				
Benzo(b)fluoranthene	53.2	0.0500	"	50.0		106	36-145				
Benzo(g,h,i)perylene	67.7	0.0500	"	50.0		135	10-163				
Benzo(k)fluoranthene	48.9	0.0500	"	50.0		97.8	16-149				
Chrysene	45.6	0.0500	"	50.0		91.1	33-120				
Dibenzo(a,h)anthracene	58.5	0.0500	"	50.0		117	10-149				
Dibenzofuran	36.4	5.00	"	50.0		72.8	42-105				
Fluoranthene	36.4	0.0500	"	50.0		72.8	33-126				
Fluorene	32.9	0.0500	"	50.0		65.8	28-117				
Hexachlorobenzene	26.4	0.0200	"	50.0		52.8	27-120				
Indeno(1,2,3-cd)pyrene	55.8	0.0500	"	50.0		112	10-150				
Naphthalene	31.2	0.0500	"	50.0		62.3	30-99				
Pentachlorophenol	50.2	0.250	"	50.0		100	19-127				
Phenanthrene	32.5	0.0500	"	50.0		65.0	31-112				
Phenol	12.1	5.00	"	50.0		24.2	10-37				
Pyrene	46.9	0.0500	"	50.0		93.8	42-125				
<i>Surrogate: 2-Fluorophenol</i>	<i>31.3</i>		<i>"</i>	<i>75.2</i>		<i>41.6</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>19.8</i>		<i>"</i>	<i>75.0</i>		<i>26.4</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>45.5</i>		<i>"</i>	<i>50.3</i>		<i>90.5</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>37.0</i>		<i>"</i>	<i>50.1</i>		<i>73.9</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>82.2</i>		<i>"</i>	<i>75.2</i>		<i>109</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>47.6</i>		<i>"</i>	<i>50.0</i>		<i>95.1</i>	<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

LCS (BG61024-BS2)

Prepared: 07/22/2016 Analyzed: 07/24/2016

2-Methylphenol	ND	5.00	ug/L				10-90				
3- & 4-Methylphenols	ND	5.00	"				10-101				
Acenaphthene	0.630	0.0500	"	1.00		63.0	24-114				
Acenaphthylene	0.740	0.0500	"	1.00		74.0	26-112				
Anthracene	0.600	0.0500	"	1.00		60.0	35-114				
Benzo(a)anthracene	1.03	0.0500	"	1.00		103	38-127				
Benzo(a)pyrene	0.770	0.0500	"	1.00		77.0	30-146				
Benzo(b)fluoranthene	1.37	0.0500	"	1.00		137	36-145				
Benzo(g,h,i)perylene	0.800	0.0500	"	1.00		80.0	10-163				
Benzo(k)fluoranthene	0.900	0.0500	"	1.00		90.0	16-149				
Chrysene	0.790	0.0500	"	1.00		79.0	33-120				
Dibenzo(a,h)anthracene	0.850	0.0500	"	1.00		85.0	10-149				
Dibenzofuran	ND	5.00	"				42-105				
Fluoranthene	0.890	0.0500	"	1.00		89.0	33-126				
Fluorene	0.740	0.0500	"	1.00		74.0	28-117				
Hexachlorobenzene	ND	0.0200	"				27-120				
Indeno(1,2,3-cd)pyrene	0.870	0.0500	"	1.00		87.0	10-150				
Naphthalene	0.650	0.0500	"	1.00		65.0	30-99				
Pentachlorophenol	ND	0.250	"				19-127				
Phenanthrene	0.860	0.0500	"	1.00		86.0	31-112				
Phenol	ND	5.00	"				10-37				
Pyrene	0.760	0.0500	"	1.00		76.0	42-125				
<i>Surrogate: 2-Fluorophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>0.00</i>		<i>"</i>	<i>75.0</i>			<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.00</i>		<i>"</i>	<i>50.3</i>			<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.00</i>		<i>"</i>	<i>50.1</i>			<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.00</i>		<i>"</i>	<i>75.2</i>			<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>0.00</i>		<i>"</i>	<i>50.0</i>			<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Matrix Spike (BG61024-MS1)	*Source sample: 16G0638-01 (MW-1)						Prepared: 07/22/2016 Analyzed: 07/24/2016				
2-Methylphenol	19.3	5.71	ug/L	57.1	ND	33.8	10-118				
3- & 4-Methylphenols	16.1	5.71	"	57.1	ND	28.1	10-102				
Acenaphthene	35.9	0.0571	"	57.1	ND	62.9	17-132				
Acenaphthylene	33.8	0.0571	"	57.1	ND	59.2	13-124				
Anthracene	34.3	0.0571	"	57.1	ND	60.0	40-105				
Benzo(a)anthracene	40.9	0.0571	"	57.1	ND	71.6	23-141				
Benzo(a)pyrene	60.9	0.0571	"	57.1	ND	107	46-118				
Benzo(b)fluoranthene	55.6	0.0571	"	57.1	ND	97.3	22-133				
Benzo(g,h,i)perylene	55.0	0.0571	"	57.1	ND	96.3	10-126				
Benzo(k)fluoranthene	45.0	0.0571	"	57.1	ND	78.8	18-152				
Chrysene	45.6	0.0571	"	57.1	ND	79.9	30-127				
Dibenzo(a,h)anthracene	51.9	0.0571	"	57.1	ND	90.9	10-131				
Dibenzofuran	38.7	5.71	"	57.1	ND	67.8	37-103				
Fluoranthene	38.2	0.0571	"	57.1	ND	66.8	29-123				
Fluorene	35.4	0.0571	"	57.1	ND	62.0	20-133				
Hexachlorobenzene	28.1	0.0229	"	57.1	ND	49.2	24-120				
Indeno(1,2,3-cd)pyrene	48.4	0.0571	"	57.1	ND	84.8	10-130				
Naphthalene	32.6	0.0571	"	57.1	ND	57.1	26-104				
Pentachlorophenol	54.7	0.286	"	57.1	ND	95.7	10-181				
Phenanthrene	34.0	0.0571	"	57.1	ND	59.5	29-121				
Phenol	8.37	5.71	"	57.1	ND	14.6	10-107				
Pyrene	48.1	0.0571	"	57.1	ND	84.1	34-129				
<i>Surrogate: 2-Fluorophenol</i>	<i>27.2</i>		<i>"</i>	<i>85.9</i>		<i>31.7</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>16.4</i>		<i>"</i>	<i>85.7</i>		<i>19.1</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>47.8</i>		<i>"</i>	<i>57.5</i>		<i>83.1</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>39.4</i>		<i>"</i>	<i>57.3</i>		<i>68.8</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>86.6</i>		<i>"</i>	<i>85.9</i>		<i>101</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>49.0</i>		<i>"</i>	<i>57.1</i>		<i>85.7</i>	<i>15-106</i>				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61024 - EPA 3510C

Matrix Spike Dup (BG61024-MSD1)		*Source sample: 16G0638-01 (MW-1)					Prepared: 07/22/2016 Analyzed: 07/24/2016				
2-Methylphenol	20.9	5.71	ug/L	57.1	ND	36.6	10-118		8.18	20	
3- & 4-Methylphenols	17.3	5.71	"	57.1	ND	30.3	10-102		7.39	20	
Acenaphthene	37.6	0.0571	"	57.1	ND	65.9	17-132		4.66	20	
Acenaphthylene	35.5	0.0571	"	57.1	ND	62.1	13-124		4.75	20	
Anthracene	37.5	0.0571	"	57.1	ND	65.7	40-105		9.01	20	
Benzo(a)anthracene	46.9	0.0571	"	57.1	ND	82.1	23-141		13.6	20	
Benzo(a)pyrene	76.8	0.0571	"	57.1	ND	134	46-118	High Bias	23.0	20	Non-dir.
Benzo(b)fluoranthene	56.9	0.0571	"	57.1	ND	99.6	22-133		2.30	20	
Benzo(g,h,i)perylene	70.4	0.0571	"	57.1	ND	123	10-126		24.5	20	Non-dir.
Benzo(k)fluoranthene	68.4	0.0571	"	57.1	ND	120	18-152		41.2	20	Non-dir.
Chrysene	54.6	0.0571	"	57.1	ND	95.6	30-127		17.9	20	
Dibenzo(a,h)anthracene	68.0	0.0571	"	57.1	ND	119	10-131		26.8	20	Non-dir.
Dibenzofuran	41.6	5.71	"	57.1	ND	72.8	37-103		7.14	20	
Fluoranthene	41.5	0.0571	"	57.1	ND	72.7	29-123		8.43	20	
Fluorene	37.1	0.0571	"	57.1	ND	65.0	20-133		4.73	20	
Hexachlorobenzene	30.3	0.0229	"	57.1	ND	53.0	24-120		7.56	20	
Indeno(1,2,3-cd)pyrene	61.2	0.0571	"	57.1	ND	107	10-130		23.3	20	Non-dir.
Naphthalene	35.0	0.0571	"	57.1	ND	61.3	26-104		7.06	20	
Pentachlorophenol	60.3	0.286	"	57.1	ND	105	10-181		9.68	20	
Phenanthrene	37.0	0.0571	"	57.1	ND	64.7	29-121		8.44	20	
Phenol	11.8	5.71	"	57.1	ND	20.6	10-107		34.0	20	Non-dir.
Pyrene	58.0	0.0571	"	57.1	ND	101	34-129		18.7	20	
<i>Surrogate: 2-Fluorophenol</i>	<i>29.5</i>		<i>"</i>	<i>85.9</i>		<i>34.3</i>	<i>12-64</i>				
<i>Surrogate: Phenol-d5</i>	<i>18.1</i>		<i>"</i>	<i>85.7</i>		<i>21.1</i>	<i>10-82</i>				
<i>Surrogate: Nitrobenzene-d5</i>	<i>51.4</i>		<i>"</i>	<i>57.5</i>		<i>89.4</i>	<i>12-96</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>41.4</i>		<i>"</i>	<i>57.3</i>		<i>72.4</i>	<i>16-84</i>				
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>92.0</i>		<i>"</i>	<i>85.9</i>		<i>107</i>	<i>15-104</i>				
<i>Surrogate: Terphenyl-d14</i>	<i>57.8</i>		<i>"</i>	<i>57.1</i>		<i>101</i>	<i>15-106</i>				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Blank (BG60892-BLK1)

Prepared: 07/20/2016 Analyzed: 07/21/2016

4,4'-DDD	ND	0.00400	ug/L
4,4'-DDE	ND	0.00400	"
4,4'-DDT	ND	0.00400	"
Aldrin	ND	0.00400	"
alpha-BHC	ND	0.00400	"
alpha-Chlordane	ND	0.00400	"
beta-BHC	ND	0.00400	"
delta-BHC	ND	0.00400	"
Dieldrin	ND	0.00200	"
Endosulfan I	ND	0.00400	"
Endosulfan II	ND	0.00400	"
Endosulfan sulfate	ND	0.00400	"
Endrin	ND	0.00400	"
gamma-BHC (Lindane)	ND	0.00400	"
Heptachlor	ND	0.00400	"

Surrogate: Decachlorobiphenyl

0.161

"

0.200

80.7

30-150

Surrogate: Tetrachloro-m-xylene

0.137

"

0.200

68.5

30-150

LCS (BG60892-BS1)

Prepared: 07/20/2016 Analyzed: 07/21/2016

4,4'-DDD	0.0763	0.00400	ug/L	0.100	76.3	40-120
4,4'-DDE	0.0700	0.00400	"	0.100	70.0	40-120
4,4'-DDT	0.0875	0.00400	"	0.100	87.5	40-120
Aldrin	0.0746	0.00400	"	0.100	74.6	40-120
alpha-BHC	0.0750	0.00400	"	0.100	75.0	40-120
alpha-Chlordane	0.0756	0.00400	"	0.100	75.6	40-120
beta-BHC	0.0848	0.00400	"	0.100	84.8	40-120
delta-BHC	0.0426	0.00400	"	0.100	42.6	40-120
Dieldrin	0.0809	0.00200	"	0.100	80.9	40-120
Endosulfan I	0.0843	0.00400	"	0.100	84.3	40-120
Endosulfan II	0.0881	0.00400	"	0.100	88.1	40-120
Endosulfan sulfate	0.0821	0.00400	"	0.100	82.1	40-120
Endrin	0.0864	0.00400	"	0.100	86.4	40-120
gamma-BHC (Lindane)	0.0775	0.00400	"	0.100	77.5	40-120
Heptachlor	0.0746	0.00400	"	0.100	74.6	40-120

Surrogate: Decachlorobiphenyl

0.164

"

0.200

82.0

30-150

Surrogate: Tetrachloro-m-xylene

0.147

"

0.200

73.3

30-150



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Matrix Spike (BG60892-MS1)		*Source sample: 16G0638-01 (MW-1)					Prepared: 07/20/2016 Analyzed: 07/21/2016				
4,4'-DDD	0.100	0.00444	ug/L	0.111	ND	90.2	30-150				
4,4'-DDE	0.0858	0.00444	"	0.111	ND	77.2	30-150				
4,4'-DDT	0.106	0.00444	"	0.111	ND	95.2	30-150				
Aldrin	0.0628	0.00444	"	0.111	ND	56.5	30-150				
alpha-BHC	0.0644	0.00444	"	0.111	ND	58.0	30-150				
alpha-Chlordane	0.0706	0.00444	"	0.111	ND	63.6	30-150				
beta-BHC	0.0843	0.00444	"	0.111	ND	75.9	30-150				
delta-BHC	0.0462	0.00444	"	0.111	ND	41.6	30-150				
Dieldrin	0.0768	0.00222	"	0.111	ND	69.1	30-150				
Endosulfan I	0.0740	0.00444	"	0.111	ND	66.6	30-150				
Endosulfan II	0.0910	0.00444	"	0.111	ND	81.9	30-150				
Endosulfan sulfate	0.0999	0.00444	"	0.111	ND	89.9	30-150				
Endrin	0.0894	0.00444	"	0.111	ND	80.5	30-150				
gamma-BHC (Lindane)	0.0677	0.00444	"	0.111	ND	61.0	30-150				
Heptachlor	0.0667	0.00444	"	0.111	ND	60.1	30-150				
Surrogate: Decachlorobiphenyl	0.162		"	0.222		73.1	30-150				
Surrogate: Tetrachloro-m-xylene	0.128		"	0.222		57.7	30-150				

Matrix Spike Dup (BG60892-MSD1)		*Source sample: 16G0638-01 (MW-1)					Prepared: 07/20/2016 Analyzed: 07/21/2016				
4,4'-DDD	0.115	0.00471	ug/L	0.118	ND	97.8	30-150	13.7	30		
4,4'-DDE	0.100	0.00471	"	0.118	ND	85.2	30-150	15.6	30		
4,4'-DDT	0.119	0.00471	"	0.118	ND	101	30-150	12.0	30		
Aldrin	0.0714	0.00471	"	0.118	ND	60.7	30-150	12.8	30		
alpha-BHC	0.0708	0.00471	"	0.118	ND	60.2	30-150	9.53	30		
alpha-Chlordane	0.0807	0.00471	"	0.118	ND	68.6	30-150	13.2	30		
beta-BHC	0.0970	0.00471	"	0.118	ND	82.4	30-150	14.0	30		
delta-BHC	0.0505	0.00471	"	0.118	ND	42.9	30-150	8.94	30		
Dieldrin	0.0885	0.00235	"	0.118	ND	75.2	30-150	14.1	30		
Endosulfan I	0.0861	0.00471	"	0.118	ND	73.2	30-150	15.2	30		
Endosulfan II	0.104	0.00471	"	0.118	ND	88.0	30-150	12.9	30		
Endosulfan sulfate	0.100	0.00471	"	0.118	ND	85.2	30-150	0.416	30		
Endrin	0.104	0.00471	"	0.118	ND	88.0	30-150	14.6	30		
gamma-BHC (Lindane)	0.0769	0.00471	"	0.118	ND	65.4	30-150	12.7	30		
Heptachlor	0.0755	0.00471	"	0.118	ND	64.2	30-150	12.4	30		
Surrogate: Decachlorobiphenyl	0.177		"	0.235		75.1	30-150				
Surrogate: Tetrachloro-m-xylene	0.138		"	0.235		58.8	30-150				



Organochlorine Pesticides by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch Y6G2212 - BG60122

Performance Mix (Y6G2212-PEM1)

Prepared & Analyzed: 07/21/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200				
4,4'-DDE	0.0710		"	0.00			0-200				
4,4'-DDT	129		"	200		64.4	0-200				
Endrin	83.6		"	100		83.6	0-200				

Performance Mix (Y6G2212-PEM2)

Prepared & Analyzed: 07/21/2016

4,4'-DDD	0.00		ng/mL	0.00			0-200				
4,4'-DDE	0.635		"	0.00			0-200				
4,4'-DDT	141		"	200		70.3	0-200				
Endrin	92.3		"	100		92.3	0-200				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60892 - EPA SW846-3510C Low Level

Blank (BG60892-BLK2)

Prepared: 07/20/2016 Analyzed: 07/22/2016

Aroclor 1016	ND	0.0500	ug/L								
Aroclor 1221	ND	0.0500	"								
Aroclor 1232	ND	0.0500	"								
Aroclor 1242	ND	0.0500	"								
Aroclor 1248	ND	0.0500	"								
Aroclor 1254	ND	0.0500	"								
Aroclor 1260	ND	0.0500	"								
Total PCBs	ND	0.0500	"								

Surrogate: Tetrachloro-m-xylene	0.164		"	0.200		82.0	30-120				
Surrogate: Decachlorobiphenyl	0.177		"	0.200		88.5	30-120				

LCS (BG60892-BS2)

Prepared: 07/20/2016 Analyzed: 07/22/2016

Aroclor 1016	1.04	0.0500	ug/L	1.00		104	40-120				
Aroclor 1260	0.940	0.0500	"	1.00		94.0	40-120				
Surrogate: Tetrachloro-m-xylene	0.149		"	0.200		74.5	30-120				
Surrogate: Decachlorobiphenyl	0.185		"	0.200		92.5	30-120				



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60930 - EPA 3015A

Blank (BG60930-BLK1)

Prepared & Analyzed: 07/21/2016

Arsenic	ND	4	ug/L
Barium	ND	10	"
Beryllium	ND	1	"
Cadmium	ND	3	"
Chromium	ND	5	"
Copper	ND	3	"
Lead	ND	3	"
Manganese	ND	5	"
Nickel	ND	5	"
Selenium	ND	10	"
Silver	ND	5	"
Zinc	ND	10	"

Duplicate (BG60930-DUP1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/21/2016

Arsenic	ND	4	ug/L	ND			20
Barium	59	11	"	58		0.832	20
Beryllium	ND	1	"	ND			20
Cadmium	ND	3	"	ND			20
Chromium	ND	6	"	ND			20
Copper	16	3	"	18		10.3	20
Lead	ND	3	"	ND			20
Manganese	194	6	"	187		3.33	20
Nickel	ND	6	"	ND			20
Selenium	ND	11	"	ND			20
Silver	ND	6	"	ND			20
Zinc	25	11	"	25		2.18	20

Matrix Spike (BG60930-MS1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/21/2016

Arsenic	2420	4	ug/L	2220	ND	109	75-125
Barium	2580	11	"	2220	58	114	75-125
Beryllium	62	1	"	55.6	ND	112	75-125
Cadmium	61	3	"	55.6	ND	110	75-125
Chromium	244	6	"	222	ND	110	75-125
Copper	350	3	"	278	18	120	75-125
Lead	587	3	"	556	ND	106	75-125
Manganese	825	6	"	556	187	115	75-125
Nickel	610	6	"	556	ND	110	75-125
Selenium	2390	11	"	2220	ND	108	75-125
Silver	57	6	"	55.6	ND	103	75-125
Zinc	610	11	"	556	25	105	75-125



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60930 - EPA 3015A

Reference (BG60930-SRM1)

Prepared & Analyzed: 07/21/2016

Arsenic	0.714		ug/mL	0.720		99.2	84.5-114.1				
Barium	0.405		"	0.400		101	85-115				
Beryllium	0.155		"	0.160		97.1	85-115				
Cadmium	0.428		"	0.440		97.3	85-115				
Chromium	0.221		"	0.220		101	85-115				
Copper	0.873		"	0.760		115	85-115				
Lead	0.819		"	0.840		97.5	85-115				
Manganese	1.20		"	1.20		99.7	85-115				
Nickel	0.604		"	0.600		101	87.5-113.3				
Selenium	0.708		"	0.720		98.3	85-115				
Silver	0.777		"	0.829		93.7	85-114.9				
Zinc	0.574		"	0.580		99.0	85-115				

Batch BG61006 - EPA 3015A

Blank (BG61006-BLK1)

Prepared & Analyzed: 07/22/2016

Arsenic - Dissolved	ND	0.004	mg/L								
Barium - Dissolved	ND	0.010	"								
Beryllium - Dissolved	ND	0.001	"								
Cadmium - Dissolved	ND	0.003	"								
Chromium - Dissolved	ND	0.005	"								
Copper - Dissolved	ND	0.003	"								
Lead - Dissolved	ND	0.003	"								
Manganese - Dissolved	ND	0.005	"								
Nickel - Dissolved	ND	0.005	"								
Selenium - Dissolved	ND	0.010	"								
Silver - Dissolved	ND	0.005	"								
Zinc - Dissolved	ND	0.010	"								



Metals by ICP - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61006 - EPA 3015A

Duplicate (BG61006-DUP1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/22/2016				
Arsenic - Dissolved	ND	0.004	mg/L		ND					20	
Barium - Dissolved	0.061	0.011	"		0.060				1.31	20	
Beryllium - Dissolved	ND	0.001	"		ND					20	
Cadmium - Dissolved	ND	0.003	"		ND					20	
Chromium - Dissolved	ND	0.006	"		ND					20	
Copper - Dissolved	0.036	0.003	"		0.046				23.7	20	Non-dir.
Lead - Dissolved	ND	0.003	"		ND					20	
Manganese - Dissolved	0.210	0.006	"		0.207				1.55	20	
Nickel - Dissolved	ND	0.006	"		ND					20	
Selenium - Dissolved	ND	0.011	"		ND					20	
Silver - Dissolved	ND	0.006	"		ND					20	
Zinc - Dissolved	0.032	0.011	"		0.037				15.4	20	

Matrix Spike (BG61006-MS1)		*Source sample: 16G0638-01 (MW-1)					Prepared & Analyzed: 07/22/2016				
Arsenic - Dissolved	2.64	0.004	mg/L	2.22	ND	119	75-125				
Barium - Dissolved	2.73	0.011	"	2.22	0.060	120	75-125				
Beryllium - Dissolved	0.064	0.001	"	0.0556	ND	115	75-125				
Cadmium - Dissolved	0.066	0.003	"	0.0556	ND	118	75-125				
Chromium - Dissolved	0.254	0.006	"	0.222	ND	114	75-125				
Copper - Dissolved	0.380	0.003	"	0.278	0.046	120	75-125				
Lead - Dissolved	0.629	0.003	"	0.556	ND	113	75-125				
Manganese - Dissolved	0.875	0.006	"	0.556	0.207	120	75-125				
Nickel - Dissolved	0.649	0.006	"	0.556	ND	117	75-125				
Selenium - Dissolved	2.62	0.011	"	2.22	ND	118	75-125				
Silver - Dissolved	0.060	0.006	"	0.0556	ND	109	75-125				
Zinc - Dissolved	0.641	0.011	"	0.556	0.037	109	75-125				

Reference (BG61006-SRM1)		Prepared & Analyzed: 07/22/2016									
Arsenic - Dissolved	0.718		ug/mL	0.720		99.7	84.5-114.1				
Barium - Dissolved	0.406		"	0.400		101	85-115				
Beryllium - Dissolved	0.154		"	0.160		96.2	85-115				
Cadmium - Dissolved	0.424		"	0.440		96.4	85-115				
Chromium - Dissolved	0.218		"	0.220		99.3	85-115				
Copper - Dissolved	0.859		"	0.760		113	85-115				
Lead - Dissolved	0.820		"	0.840		97.7	85-115				
Manganese - Dissolved	1.19		"	1.20		98.8	85-115				
Nickel - Dissolved	0.601		"	0.600		100	87.5-113.3				
Selenium - Dissolved	0.711		"	0.720		98.8	85-115				
Silver - Dissolved	0.769		"	0.829		92.7	85-114.9				
Zinc - Dissolved	0.577		"	0.580		99.4	85-115				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60821 - EPA 7473 water

Blank (BG60821-BLK1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	ND	0.00020	mg/L								
Mercury	ND	0.20	ug/L								

Duplicate (BG60821-DUP1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	ND	0.00020	mg/L		ND					20	
Mercury	ND	0.20	ug/L		ND					20	

Matrix Spike (BG60821-MS1)

*Source sample: 16G0638-01 (MW-1)

Prepared & Analyzed: 07/20/2016

Mercury	0.00160		mg/kg	0.00200	ND	80.2	75-125				
Mercury - Dissolved	0.00189		mg/L	0.00200	ND	94.4	75-125				

Reference (BG60821-SRM1)

Prepared & Analyzed: 07/20/2016

Mercury - Dissolved	0.0024899		mg/L	0.00230		108	61.3-135				
Mercury	0.00249		mg/kg	0.00230		108	61.3-135				



Wet Chemistry Parameters - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60817 - Analysis Preparation

Blank (BG60817-BLK1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	ND	10.0	ug/L								
LCS (BG60817-BS1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	537	10.0	ug/L	500		107	80-120				
Duplicate (BG60817-DUP1) *Source sample: 16G0638-01 (MW-1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	ND	10.0	ug/L		ND					20	
Matrix Spike (BG60817-MS1) *Source sample: 16G0638-01 (MW-1)								Prepared & Analyzed: 07/19/2016			
Chromium, Hexavalent	573	10.0	ug/L	500	ND	115	75-125				

Batch BG60842 - Analysis Preparation

Blank (BG60842-BLK1)								Prepared & Analyzed: 07/20/2016			
Cyanide, total	ND	10.0	ug/L								
Reference (BG60842-SRM1)								Prepared & Analyzed: 07/20/2016			
Cyanide, total	179	10.0	ug/L	10000		1.79	0-200				

Batch BG61073 - Analysis Preparation

Blank (BG61073-BLK1)								Prepared & Analyzed: 07/25/2016			
Cyanide, total	ND	10.0	ug/L								
LCS (BG61073-BS1)								Prepared & Analyzed: 07/25/2016			
Cyanide, total	158	10.0	ug/L	200		79.0	76.2-107				



Wet Chemistry Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG61073 - Analysis Preparation

Duplicate (BG61073-DUP1)		*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/25/2016			
Cyanide, total	ND	10.0	ug/L		ND					15	
Matrix Spike (BG61073-MS1)		*Source sample: 16G0638-01 (MW-1)						Prepared & Analyzed: 07/25/2016			
Cyanide, total	158	10.0	ug/L	200	ND	79.0	79-105				



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
16G0638-01	MW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-02	MW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-03	MW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-04	MW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-05	Equipment Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-06	GW Dupe	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
16G0638-07	Trip Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Notes and Definitions

S-08	The recovery of this surrogate was outside of QC limits.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-RPD	Sample conc. <5 X reporting limit.
M-LSRD	Original sample conc <50 X reporting limit.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
HT-01	This result was reported from an analysis conducted outside of the EPA recommended holding time.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.



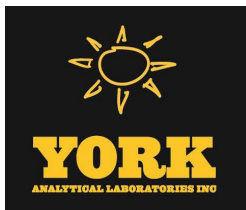
If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



Technical Report

prepared for:

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Report Date: 07/22/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0568

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 07/22/2016
Client Project ID: 255 Randolph Street
York Project (SDG) No.: 16G0568

Laurel Environmental
53 W Hills Road, Suite 1
Huntington Station NY, 11746
Attention: Scott Yanuck

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 15, 2016 and listed below. The project was identified as your project: **255 Randolph Street**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16G0568-01	IA-1	Indoor Ambient Air	07/14/2016	07/15/2016
16G0568-02	OA-1	Outdoor Ambient Air	07/14/2016	07/15/2016
16G0568-03	SS-1	Soil Vapor	07/14/2016	07/15/2016
16G0568-04	SS-2	Soil Vapor	07/14/2016	07/15/2016
16G0568-05	SS-3	Soil Vapor	07/14/2016	07/15/2016
16G0568-06	SV-1	Soil Vapor	07/14/2016	07/15/2016
16G0568-07	SV-2	Soil Vapor	07/14/2016	07/15/2016

General Notes for York Project (SDG) No.: 16G0568

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/22/2016





Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.

16G0568

Client Project ID

255 Randolph Street

Matrix

Indoor Ambient Air

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.74	0.74	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
71-55-6	1,1,1-Trichloroethane	37		ug/m ³	0.59	0.59	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.74	0.74	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.82	0.82	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.59	0.59	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-35-4	1,1-Dichloroethylene	1.1		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.80	0.80	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-63-6	1,2,4-Trimethylbenzene	3.6		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.83	0.83	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.50	0.50	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.75	0.75	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-67-8	1,3,5-Trimethylbenzene	1.2		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.71	0.71	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.50	0.50	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.65	0.65	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.77	0.77	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
78-93-3	2-Butanone	3.7		ug/m ³	0.32	0.32	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.88	0.88	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Indoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	1.7	1.7	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-10-1	4-Methyl-2-pentanone	4.8		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
67-64-1	Acetone	35		ug/m ³	0.51	0.51	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	0.23	0.23	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
71-43-2	Benzene	0.48		ug/m ³	0.34	0.34	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.56	0.56	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.72	0.72	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-25-2	Bromoform	ND		ug/m ³	1.1	1.1	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.42	0.42	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	0.33	0.33	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
56-23-5	Carbon tetrachloride	1.0		ug/m ³	0.17	0.17	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.28	0.28	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
67-66-3	Chloroform	1.1		ug/m ³	0.52	0.52	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
74-87-3	Chloromethane	1.3		ug/m ³	0.22	0.22	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
156-59-2	cis-1,2-Dichloroethylene	5.5		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
110-82-7	Cyclohexane	ND		ug/m ³	0.37	0.37	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.92	0.92	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-71-8	Dichlorodifluoromethane	2.3		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
141-78-6	* Ethyl acetate	1.3		ug/m ³	0.77	0.77	1.075	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 22:18	LDS
100-41-4	Ethyl Benzene	0.84		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: IA-1

York Sample ID: 16G0568-01

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Indoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	Isopropanol	ND		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.39	0.39	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-09-2	Methylene chloride	0.86		ug/m ³	0.75	0.75	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
142-82-5	n-Heptane	1.3		ug/m ³	0.44	0.44	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
110-54-3	n-Hexane	0.64		ug/m ³	0.38	0.38	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
95-47-6	o-Xylene	1.2		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
179601-23-1	p- & m- Xylenes	3.3		ug/m ³	0.93	0.93	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
622-96-8	* p-Ethyltoluene	2.8		ug/m ³	0.53	0.53	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
115-07-1	* Propylene	1.2		ug/m ³	0.19	0.19	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
100-42-5	Styrene	0.69		ug/m ³	0.46	0.46	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
127-18-4	Tetrachloroethylene	740		ug/m ³	1.7	1.7	10.08	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 08:01	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.63	0.63	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-88-3	Toluene	4.1		ug/m ³	0.41	0.41	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.43	0.43	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.49	0.49	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
79-01-6	Trichloroethylene	370		ug/m ³	1.4	1.4	10.08	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 08:01	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.60	0.60	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.38	0.38	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	0.47	0.47	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.27	0.27	1.075	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 22:18	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Outdoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
71-55-6	1,1,1-Trichloroethane	1.4		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
95-63-6	1,2,4-Trimethylbenzene	4.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
108-67-8	1,3,5-Trimethylbenzene	1.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
78-93-3	2-Butanone	1.9		ug/m ³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.82	0.82	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	1.6	1.6	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Outdoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-64-1	Acetone	11		ug/m ³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	0.22	0.22	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
71-43-2	Benzene	1.1		ug/m ³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-25-2	Bromoform	ND		ug/m ³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-15-0	Carbon disulfide	0.87		ug/m ³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-66-3	Chloroform	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
74-87-3	Chloromethane	1.2		ug/m ³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
110-82-7	Cyclohexane	0.83		ug/m ³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-71-8	Dichlorodifluoromethane	2.3		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
100-41-4	Ethyl Benzene	2.5		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
67-63-0	Isopropanol	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: OA-1

York Sample ID: 16G0568-02

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Outdoor Ambient Air

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-09-2	Methylene chloride	2.2		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
142-82-5	n-Heptane	1.8		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
110-54-3	n-Hexane	4.7		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
95-47-6	o-Xylene	2.8		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
179601-23-1	p- & m- Xylenes	8.6		ug/m ³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
622-96-8	* p-Ethyltoluene	5.4		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
115-07-1	* Propylene	2.2		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
100-42-5	Styrene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
127-18-4	Tetrachloroethylene	30		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.59	0.59	1	EPA TO-15 Certifications:	07/19/2016 11:28	07/19/2016 23:15	LDS
108-88-3	Toluene	11		ug/m ³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
79-01-6	Trichloroethylene	16		ug/m ³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	0.44	0.44	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/19/2016 23:15	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	1100		ug/m ³	13	13	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
71-55-6	1,1,1-Trichloroethane	200000		ug/m ³	860	860	1568.8	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 14:46	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
79-00-5	1,1,2-Trichloroethane	350		ug/m ³	11	11	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-34-3	1,1-Dichloroethane	1100		ug/m ³	7.9	7.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-35-4	1,1-Dichloroethylene	5100		ug/m ³	160	160	392.2	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:06	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-63-6	1,2,4-Trimethylbenzene	14		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	15	15	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
107-06-2	1,2-Dichloroethane	360		ug/m ³	7.9	7.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	9.1	9.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	9.1	9.1	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
78-93-3	2-Butanone	17		ug/m ³	5.8	5.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	16	16	19.61	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:01	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	31	31	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-64-1	Acetone	160		ug/m ³	9.3	9.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.3	4.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
71-43-2	Benzene	210		ug/m ³	6.3	6.3	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	10	10	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-27-4	Bromodichloromethane	22		ug/m ³	13	13	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-25-2	Bromoform	ND		ug/m ³	20	20	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.6	7.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-15-0	Carbon disulfide	16		ug/m ³	6.1	6.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
56-23-5	Carbon tetrachloride	310		ug/m ³	3.1	3.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-90-7	Chlorobenzene	300		ug/m ³	9.0	9.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-00-3	Chloroethane	ND		ug/m ³	5.2	5.2	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-66-3	Chloroform	3400		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
74-87-3	Chloromethane	ND		ug/m ³	4.0	4.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
156-59-2	cis-1,2-Dichloroethylene	2100		ug/m ³	7.8	7.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.9	8.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
110-82-7	Cyclohexane	35		ug/m ³	6.8	6.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	17	17	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.7	9.7	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-41-4	Ethyl Benzene	ND		ug/m ³	8.5	8.5	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	21	21	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-1

York Sample ID: 16G0568-03

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	7.1	7.1	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-09-2	Methylene chloride	66		ug/m ³	14	14	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
142-82-5	n-Heptane	ND		ug/m ³	8.0	8.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
110-54-3	n-Hexane	29		ug/m ³	6.9	6.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
95-47-6	o-Xylene	12		ug/m ³	8.5	8.5	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
179601-23-1	p- & m- Xylenes	31		ug/m ³	17	17	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
622-96-8	* p-Ethyltoluene	13		ug/m ³	9.6	9.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
115-07-1	* Propylene	ND		ug/m ³	3.4	3.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
100-42-5	Styrene	ND		ug/m ³	8.4	8.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
127-18-4	Tetrachloroethylene	5700000		ug/m ³	2800	2800	16729	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/22/2016 10:12	LDS
109-99-9	* Tetrahydrofuran	120		ug/m ³	12	12	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-88-3	Toluene	91		ug/m ³	7.4	7.4	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
156-60-5	trans-1,2-Dichloroethylene	300		ug/m ³	7.8	7.8	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.9	8.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
79-01-6	Trichloroethylene	4100000		ug/m ³	2200	2200	16729	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/22/2016 10:12	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	11	11	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.9	6.9	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.6	8.6	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS
75-01-4	Vinyl Chloride	8.0		ug/m ³	5.0	5.0	19.61	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:01	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
71-55-6	1,1,1-Trichloroethane	37		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	7.4	7.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-63-6	1,2,4-Trimethylbenzene	21		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.4	7.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.5	8.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.5	8.5	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
78-93-3	2-Butanone	8.6		ug/m ³	5.4	5.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.33	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 01:50	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-64-1	Acetone	42		ug/m ³	8.7	8.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
71-43-2	Benzene	15		ug/m ³	5.9	5.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.5	9.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.1	7.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	5.7	5.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	2.9	2.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.4	8.4	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.8	4.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-66-3	Chloroform	ND		ug/m ³	8.9	8.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.3	8.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
110-82-7	Cyclohexane	16		ug/m ³	6.3	6.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.1	9.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-41-4	Ethyl Benzene	61		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-2

York Sample ID: 16G0568-04

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.6	6.6	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-09-2	Methylene chloride	ND		ug/m ³	13	13	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
142-82-5	n-Heptane	29		ug/m ³	7.5	7.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
110-54-3	n-Hexane	41		ug/m ³	6.5	6.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
95-47-6	o-Xylene	76		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
179601-23-1	p- & m- Xylenes	260		ug/m ³	16	16	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
622-96-8	* p-Ethyltoluene	20		ug/m ³	9.0	9.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
115-07-1	* Propylene	20		ug/m ³	3.2	3.2	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
100-42-5	Styrene	ND		ug/m ³	7.8	7.8	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
127-18-4	Tetrachloroethylene	2000		ug/m ³	3.1	3.1	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	11	11	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-88-3	Toluene	120		ug/m ³	6.9	6.9	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.3	8.3	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
79-01-6	Trichloroethylene	640		ug/m ³	2.5	2.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	10	10	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.0	8.0	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.33	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 01:50	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
71-55-6	1,1,1-Trichloroethane	1200		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	17		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-34-3	1,1-Dichloroethane	160		ug/m ³	7.4	7.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-35-4	1,1-Dichloroethylene	9.5		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-63-6	1,2,4-Trimethylbenzene	32		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.4	7.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-67-8	1,3,5-Trimethylbenzene	9.0		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
78-93-3	2-Butanone	24		ug/m ³	5.4	5.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.4	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 02:39	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-64-1	Acetone	110		ug/m ³	8.7	8.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
71-43-2	Benzene	ND		ug/m ³	5.9	5.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.5	9.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.1	7.1	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-15-0	Carbon disulfide	6.3		ug/m ³	5.7	5.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
56-23-5	Carbon tetrachloride	400		ug/m ³	2.9	2.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.5	8.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.9	4.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-66-3	Chloroform	300		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
156-59-2	cis-1,2-Dichloroethylene	830		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
110-82-7	Cyclohexane	ND		ug/m ³	6.3	6.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.1	9.1	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-41-4	Ethyl Benzene	11		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SS-3

York Sample ID: 16G0568-05

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.6	6.6	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-09-2	Methylene chloride	ND		ug/m ³	13	13	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
142-82-5	n-Heptane	ND		ug/m ³	7.5	7.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
110-54-3	n-Hexane	12		ug/m ³	6.5	6.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
95-47-6	o-Xylene	20		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
179601-23-1	p- & m- Xylenes	57		ug/m ³	16	16	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
622-96-8	* p-Ethyltoluene	25		ug/m ³	9.0	9.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
115-07-1	* Propylene	ND		ug/m ³	3.2	3.2	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
100-42-5	Styrene	ND		ug/m ³	7.8	7.8	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
127-18-4	Tetrachloroethylene	19000		ug/m ³	31	31	184	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:55	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	11	11	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-88-3	Toluene	130		ug/m ³	6.9	6.9	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
156-60-5	trans-1,2-Dichloroethylene	30		ug/m ³	7.3	7.3	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
79-01-6	Trichloroethylene	32000		ug/m ³	25	25	184	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 13:55	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	10	10	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.0	8.0	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.4	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 02:39	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.

16G0568

Client Project ID

255 Randolph Street

Matrix

Soil Vapor

Collection Date/Time

July 14, 2016 3:00 pm

Date Received

07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
71-55-6	1,1,1-Trichloroethane	55		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-34-3	1,1-Dichloroethane	19		ug/m ³	8.1	8.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-63-6	1,2,4-Trimethylbenzene	39		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	15	15	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	8.1	8.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-67-8	1,3,5-Trimethylbenzene	11		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	13	13	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	12	12	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
78-93-3	2-Butanone	97		ug/m ³	5.9	5.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	16	16	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	31	31	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	11		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-64-1	Acetone	300		ug/m ³	9.5	9.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.3	4.3	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
71-43-2	Benzene	17		ug/m ³	6.4	6.4	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	10	10	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	13	13	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-25-2	Bromoform	ND		ug/m ³	21	21	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.8	7.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-15-0	Carbon disulfide	32		ug/m ³	6.2	6.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	3.1	3.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	9.2	9.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-00-3	Chloroethane	ND		ug/m ³	5.3	5.3	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-66-3	Chloroform	ND		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
74-87-3	Chloromethane	ND		ug/m ³	4.1	4.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
156-59-2	cis-1,2-Dichloroethylene	1200		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	9.1	9.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
110-82-7	Cyclohexane	ND		ug/m ³	6.9	6.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	17	17	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.9	9.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
100-41-4	Ethyl Benzene	16		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	21	21	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-1

York Sample ID: 16G0568-06

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	7.2	7.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-09-2	Methylene chloride	26		ug/m ³	14	14	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
142-82-5	n-Heptane	14		ug/m ³	8.2	8.2	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
110-54-3	n-Hexane	42		ug/m ³	7.0	7.0	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
95-47-6	o-Xylene	26		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
179601-23-1	p- & m- Xylenes	75		ug/m ³	17	17	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
622-96-8	* p-Ethyltoluene	32		ug/m ³	9.8	9.8	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
115-07-1	* Propylene	73		ug/m ³	3.4	3.4	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
100-42-5	Styrene	ND		ug/m ³	8.5	8.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
127-18-4	Tetrachloroethylene	1600		ug/m ³	3.4	3.4	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
109-99-9	* Tetrahydrofuran	39		ug/m ³	12	12	20	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 03:28	LDS
108-88-3	Toluene	160		ug/m ³	7.5	7.5	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
156-60-5	trans-1,2-Dichloroethylene	110		ug/m ³	7.9	7.9	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	9.1	9.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
79-01-6	Trichloroethylene	1900		ug/m ³	2.7	2.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	11	11	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	7.0	7.0	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.7	8.7	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS
75-01-4	Vinyl Chloride	57		ug/m ³	5.1	5.1	20	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 03:28	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
71-55-6	1,1,1-Trichloroethane	260		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	97		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	7.5	7.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-63-6	1,2,4-Trimethylbenzene	38		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	14	14	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	7.5	7.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	8.6	8.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-67-8	1,3,5-Trimethylbenzene	12		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	12	12	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	8.6	8.6	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	11	11	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
78-93-3	2-Butanone	96		ug/m ³	5.5	5.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	15	15	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
107-05-1	3-Chloropropene	ND		ug/m ³	29	29	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	20		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-64-1	Acetone	150		ug/m ³	8.8	8.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
107-13-1	Acrylonitrile	ND		ug/m ³	4.0	4.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
71-43-2	Benzene	9.5		ug/m ³	5.9	5.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	9.6	9.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	12	12	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-25-2	Bromoform	ND		ug/m ³	19	19	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
74-83-9	Bromomethane	ND		ug/m ³	7.2	7.2	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-15-0	Carbon disulfide	23		ug/m ³	5.8	5.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
56-23-5	Carbon tetrachloride	20		ug/m ³	2.9	2.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	8.5	8.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-00-3	Chloroethane	ND		ug/m ³	4.9	4.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-66-3	Chloroform	20		ug/m ³	9.0	9.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
74-87-3	Chloromethane	ND		ug/m ³	3.8	3.8	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
156-59-2	cis-1,2-Dichloroethylene	37		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
110-82-7	Cyclohexane	13		ug/m ³	6.4	6.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	16	16	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	9.2	9.2	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	13	13	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
100-41-4	Ethyl Benzene	19		ug/m ³	8.0	8.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	20	20	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
67-63-0	Isopropanol	ND		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Sample Information

Client Sample ID: SV-2

York Sample ID: 16G0568-07

York Project (SDG) No.
16G0568

Client Project ID
255 Randolph Street

Matrix
Soil Vapor

Collection Date/Time
July 14, 2016 3:00 pm

Date Received
07/15/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	6.7	6.7	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-09-2	Methylene chloride	14		ug/m ³	13	13	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
142-82-5	n-Heptane	9.1		ug/m ³	7.6	7.6	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
110-54-3	n-Hexane	25		ug/m ³	6.5	6.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
95-47-6	o-Xylene	29		ug/m ³	8.0	8.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
179601-23-1	p- & m- Xylenes	83		ug/m ³	16	16	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
622-96-8	* p-Ethyltoluene	34		ug/m ³	9.1	9.1	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
115-07-1	* Propylene	36		ug/m ³	3.2	3.2	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
100-42-5	Styrene	ND		ug/m ³	7.9	7.9	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
127-18-4	Tetrachloroethylene	1800		ug/m ³	3.1	3.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
109-99-9	* Tetrahydrofuran	35		ug/m ³	11	11	18.53	EPA TO-15 Certifications:	07/19/2016 11:28	07/20/2016 04:17	LDS
108-88-3	Toluene	170		ug/m ³	7.0	7.0	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	7.3	7.3	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	8.4	8.4	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
79-01-6	Trichloroethylene	1800		ug/m ³	2.5	2.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	10		ug/m ³	10	10	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	6.5	6.5	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
593-60-2	Vinyl bromide	ND		ug/m ³	8.1	8.1	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	4.7	4.7	18.53	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/19/2016 11:28	07/20/2016 04:17	LDS



Analytical Batch Summary

Batch ID: BG60771

Preparation Method: EPA TO15 PREP

Prepared By: LDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0568-01	IA-1	07/19/16
16G0568-01RE1	IA-1	07/19/16
16G0568-02	OA-1	07/19/16
16G0568-03	SS-1	07/19/16
16G0568-03RE1	SS-1	07/19/16
16G0568-03RE2	SS-1	07/19/16
16G0568-04	SS-2	07/19/16
16G0568-05	SS-3	07/19/16
16G0568-05RE1	SS-3	07/19/16
16G0568-06	SV-1	07/19/16
16G0568-07	SV-2	07/19/16
BG60771-BLK1	Blank	07/19/16
BG60771-BS1	LCS	07/19/16
BG60771-DUP1	Duplicate	07/19/16

Batch ID: BG60937

Preparation Method: EPA TO15 PREP

Prepared By: LDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0568-03RE3	SS-1	07/19/16
BG60937-BLK1	Blank	07/21/16
BG60937-BS1	LCS	07/21/16



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60732 - EPA TO15 PREP

Blank (BG60732-BLK1)

Prepared & Analyzed: 07/18/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.40	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
n-Heptane	ND	0.41	"
n-Hexane	ND	0.35	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60732 - EPA TO15 PREP

Blank (BG60732-BLK1)

Prepared & Analyzed: 07/18/2016

o-Xylene	ND	0.43	ug/m ³
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.17	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.26	"

Surrogate: *p*-Bromofluorobenzene 10.0 ppbv 10.0 100 72-118

Batch BG60771 - EPA TO15 PREP

Blank (BG60771-BLK1)

Prepared & Analyzed: 07/19/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

Blank (BG60771-BLK1)

Prepared & Analyzed: 07/19/2016

Carbon tetrachloride	ND	0.16	ug/m ³
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.40	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
n-Heptane	ND	0.41	"
n-Hexane	ND	0.35	"
o-Xylene	ND	0.43	"
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.17	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.26	"

Surrogate: p-Bromofluorobenzene	10.0	ppbv	10.0	100	72-118
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Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

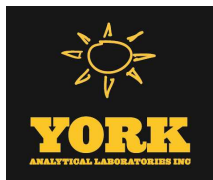
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

LCS (BG60771-BS1)

Prepared & Analyzed: 07/19/2016

1,1,1,2-Tetrachloroethane	10.1		ppbv	10.0		101	82-126				
1,1,1-Trichloroethane	10.7		"	10.0		107	70-130				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.78		"	10.0		97.8	70-130				
1,1,2-Trichloroethane	10.6		"	10.0		106	70-130				
1,1-Dichloroethane	10.2		"	10.0		102	70-130				
1,1-Dichloroethylene	9.61		"	10.0		96.1	70-130				
1,2,4-Trichlorobenzene	6.94		"	10.0		69.4	70-130	Low Bias			
1,2,4-Trimethylbenzene	10.6		"	10.0		106	70-130				
1,2-Dibromoethane	10.8		"	10.0		108	70-130				
1,2-Dichlorobenzene	10.5		"	10.0		105	70-130				
1,2-Dichloroethane	10.1		"	10.0		101	70-130				
1,2-Dichloropropane	10.8		"	10.0		108	70-130				
1,2-Dichlorotetrafluoroethane	9.61		"	10.0		96.1	70-130				
1,3,5-Trimethylbenzene	10.8		"	10.0		108	70-130				
1,3-Butadiene	10.3		"	10.0		103	70-130				
1,3-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,3-Dichloropropane	10.5		"	10.0		105	70-130				
1,4-Dichlorobenzene	10.6		"	10.0		106	70-130				
1,4-Dioxane	9.71		"	10.0		97.1	70-130				
2-Butanone	9.96		"	10.0		99.6	70-130				
2-Hexanone	8.95		"	10.0		89.5	70-130				
3-Chloropropene	10.6		"	10.0		106	70-130				
4-Methyl-2-pentanone	9.95		"	10.0		99.5	70-130				
Acetone	9.48		"	10.0		94.8	70-130				
Acrylonitrile	9.71		"	10.0		97.1	70-130				
Benzene	9.61		"	10.0		96.1	70-130				
Benzyl chloride	7.64		"	10.0		76.4	70-130				
Bromodichloromethane	11.0		"	10.0		110	70-130				
Bromoform	10.9		"	10.0		109	70-130				
Bromomethane	9.28		"	10.0		92.8	70-130				
Carbon disulfide	11.0		"	10.0		110	70-130				
Carbon tetrachloride	10.9		"	10.0		109	70-130				
Chlorobenzene	10.5		"	10.0		105	70-130				
Chloroethane	10.2		"	10.0		102	70-130				
Chloroform	10.0		"	10.0		100	70-130				
Chloromethane	10.6		"	10.0		106	70-130				
cis-1,2-Dichloroethylene	10.1		"	10.0		101	70-130				
cis-1,3-Dichloropropylene	12.1		"	10.0		121	70-130				
Cyclohexane	10.3		"	10.0		103	70-130				
Dibromochloromethane	10.8		"	10.0		108	70-130				
Dichlorodifluoromethane	10.1		"	10.0		101	70-130				
Ethyl acetate	10.0		"	10.0		100	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	9.14		"	10.0		91.4	70-130				
Isopropanol	7.87		"	10.0		78.7	70-130				
Methyl Methacrylate	8.60		"	10.0		86.0	70-130				
Methyl tert-butyl ether (MTBE)	10.2		"	10.0		102	70-130				
Methylene chloride	10.2		"	10.0		102	70-130				
n-Heptane	10.6		"	10.0		106	70-130				
n-Hexane	10.3		"	10.0		103	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60771 - EPA TO15 PREP

LCS (BG60771-BS1)

Prepared & Analyzed: 07/19/2016

o-Xylene	11.3		ppbv	10.0		113	70-130				
p- & m- Xylenes	22.5		"	20.0		113	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	6.57		"	10.0		65.7	70-130	Low Bias			
Styrene	11.1		"	10.0		111	70-130				
Tetrachloroethylene	9.71		"	10.0		97.1	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.1		"	10.0		101	70-130				
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
trans-1,3-Dichloropropylene	8.69		"	10.0		86.9	70-130				
Trichloroethylene	11.1		"	10.0		111	70-130				
Trichlorofluoromethane (Freon 11)	9.71		"	10.0		97.1	70-130				
Vinyl acetate	4.96		"	10.0		49.6	70-130	Low Bias			
Vinyl bromide	10.1		"	10.0		101	70-130				
Vinyl Chloride	10.5		"	10.0		105	70-130				
Surrogate: p-Bromofluorobenzene	9.95		"	10.0		99.5	72-118				

Duplicate (BG60771-DUP1)

*Source sample: 16G0568-02 (OA-1)

Prepared: 07/19/2016 Analyzed: 07/20/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³		ND					200	
1,1,1-Trichloroethane	1.4	0.55	"		1.4				3.92	25	
1,1,2,2-Tetrachloroethane	ND	0.69	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"		ND					25	
1,1,2-Trichloroethane	ND	0.55	"		ND					25	
1,1-Dichloroethane	ND	0.40	"		ND					25	
1,1-Dichloroethylene	ND	0.40	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.74	"		ND					25	
1,2,4-Trimethylbenzene	4.4	0.49	"		4.4				0.00	25	
1,2-Dibromoethane	ND	0.77	"		ND					25	
1,2-Dichlorobenzene	ND	0.60	"		ND					25	
1,2-Dichloroethane	ND	0.40	"		ND					25	
1,2-Dichloropropane	ND	0.46	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	0.70	"		ND					25	
1,3,5-Trimethylbenzene	1.5	0.49	"		1.4				3.39	25	
1,3-Butadiene	ND	0.66	"		ND					25	
1,3-Dichlorobenzene	ND	0.60	"		ND					25	
1,3-Dichloropropane	ND	0.46	"		ND					25	
1,4-Dichlorobenzene	ND	0.60	"		ND					25	
1,4-Dioxane	ND	0.72	"		ND					25	
2-Butanone	1.9	0.29	"		1.9				4.65	25	
2-Hexanone	ND	0.82	"		ND					25	
3-Chloropropene	ND	1.6	"		ND					25	
4-Methyl-2-pentanone	ND	0.41	"		ND					25	
Acetone	11	0.48	"		11				0.864	25	
Acrylonitrile	ND	0.22	"		ND					25	
Benzene	1.1	0.32	"		1.1				0.00	25	
Benzyl chloride	ND	0.52	"		ND					25	
Bromodichloromethane	ND	0.67	"		ND					25	
Bromoform	ND	1.0	"		ND					25	
Bromomethane	ND	0.39	"		ND					25	
Carbon disulfide	0.84	0.31	"		0.87				3.64	25	
Carbon tetrachloride	ND	0.16	"		ND					25	
Chlorobenzene	ND	0.46	"		ND					25	



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG60771 - EPA TO15 PREP											
Duplicate (BG60771-DUP1)	*Source sample: 16G0568-02 (OA-1)							Prepared: 07/19/2016 Analyzed: 07/20/2016			
Chloroethane	ND	0.26	ug/m ³		ND					25	
Chloroform	ND	0.49	"		ND					25	
Chloromethane	1.2	0.21	"		1.2				3.39	25	
cis-1,2-Dichloroethylene	ND	0.40	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Cyclohexane	0.86	0.34	"		0.83				4.08	25	
Dibromochloromethane	ND	0.85	"		ND					25	
Dichlorodifluoromethane	2.3	0.49	"		2.3				2.15	25	
Ethyl acetate	ND	0.72	"		ND					25	
Ethyl Benzene	2.5	0.43	"		2.5				0.00	25	
Hexachlorobutadiene	ND	1.1	"		ND					25	
Isopropanol	ND	0.49	"		ND					25	
Methyl Methacrylate	ND	0.41	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	0.36	"		ND					25	
Methylene chloride	2.2	0.69	"		2.2				0.00	25	
n-Heptane	1.8	0.41	"		1.8				2.30	25	
n-Hexane	4.6	0.35	"		4.7				1.53	25	
o-Xylene	2.8	0.43	"		2.8				1.55	25	
p- & m- Xylenes	8.6	0.87	"		8.6				0.504	25	
p-Ethyltoluene	5.3	0.49	"		5.4				1.85	25	
Propylene	2.3	0.17	"		2.2				4.65	25	
Styrene	ND	0.43	"		ND					25	
Tetrachloroethylene	30	0.17	"		30				1.80	25	
Tetrahydrofuran	ND	0.59	"		ND					25	
Toluene	11	0.38	"		11				0.678	25	
trans-1,2-Dichloroethylene	ND	0.40	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.45	"		ND					25	
Trichloroethylene	17	0.13	"		16				2.61	25	
Trichlorofluoromethane (Freon 11)	1.2	0.56	"		1.2				0.00	25	
Vinyl acetate	ND	0.35	"		ND					25	
Vinyl bromide	ND	0.44	"		ND					25	
Vinyl Chloride	ND	0.26	"		ND					25	
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>ppbv</i>	<i>10.0</i>		<i>101</i>	<i>72-118</i>				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.40	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.40	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
n-Heptane	ND	0.41	"
n-Hexane	ND	0.35	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

o-Xylene	ND	0.43	ug/m ³
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.17	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.26	"

Surrogate: <i>p</i> -Bromofluorobenzene	9.97	ppbv	10.0	99.7	72-118
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LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1,2-Tetrachloroethane	10.2	ppbv	10.0	102	82-126
1,1,1-Trichloroethane	10.2	"	10.0	102	70-130
1,1,2,2-Tetrachloroethane	10.2	"	10.0	102	70-130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.33	"	10.0	93.3	70-130
1,1,2-Trichloroethane	10.5	"	10.0	105	70-130
1,1-Dichloroethane	10.2	"	10.0	102	70-130
1,1-Dichloroethylene	9.29	"	10.0	92.9	70-130
1,2,4-Trichlorobenzene	7.10	"	10.0	71.0	70-130
1,2,4-Trimethylbenzene	10.6	"	10.0	106	70-130
1,2-Dibromoethane	10.7	"	10.0	107	70-130
1,2-Dichlorobenzene	10.7	"	10.0	107	70-130
1,2-Dichloroethane	9.83	"	10.0	98.3	70-130
1,2-Dichloropropane	10.9	"	10.0	109	70-130
1,2-Dichlorotetrafluoroethane	9.33	"	10.0	93.3	70-130
1,3,5-Trimethylbenzene	10.9	"	10.0	109	70-130
1,3-Butadiene	8.51	"	10.0	85.1	70-130
1,3-Dichlorobenzene	10.8	"	10.0	108	70-130
1,3-Dichloropropane	10.7	"	10.0	107	70-130
1,4-Dichlorobenzene	10.7	"	10.0	107	70-130
1,4-Dioxane	9.69	"	10.0	96.9	70-130
2-Butanone	9.95	"	10.0	99.5	70-130
2-Hexanone	9.56	"	10.0	95.6	70-130
3-Chloropropene	10.7	"	10.0	107	70-130
4-Methyl-2-pentanone	10.2	"	10.0	102	70-130
Acetone	9.45	"	10.0	94.5	70-130
Acrylonitrile	9.54	"	10.0	95.4	70-130
Benzene	9.19	"	10.0	91.9	70-130
Benzyl chloride	7.64	"	10.0	76.4	70-130
Bromodichloromethane	10.9	"	10.0	109	70-130
Bromoform	10.8	"	10.0	108	70-130
Bromomethane	9.02	"	10.0	90.2	70-130
Carbon disulfide	10.6	"	10.0	106	70-130
Carbon tetrachloride	10.3	"	10.0	103	70-130
Chlorobenzene	10.6	"	10.0	106	70-130



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

Chloroethane	9.96		ppbv	10.0		99.6	70-130				
Chloroform	9.66		"	10.0		96.6	70-130				
Chloromethane	8.50		"	10.0		85.0	70-130				
cis-1,2-Dichloroethylene	9.93		"	10.0		99.3	70-130				
cis-1,3-Dichloropropylene	12.3		"	10.0		123	70-130				
Cyclohexane	10.1		"	10.0		101	70-130				
Dibromochloromethane	10.6		"	10.0		106	70-130				
Dichlorodifluoromethane	10.0		"	10.0		100	70-130				
Ethyl acetate	9.81		"	10.0		98.1	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	9.21		"	10.0		92.1	70-130				
Isopropanol	7.89		"	10.0		78.9	70-130				
Methyl Methacrylate	8.50		"	10.0		85.0	70-130				
Methyl tert-butyl ether (MTBE)	9.97		"	10.0		99.7	70-130				
Methylene chloride	10.1		"	10.0		101	70-130				
n-Heptane	10.3		"	10.0		103	70-130				
n-Hexane	10.1		"	10.0		101	70-130				
o-Xylene	11.3		"	10.0		113	70-130				
p- & m- Xylenes	22.2		"	20.0		111	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	3.98		"	10.0		39.8	70-130	Low Bias			
Styrene	11.1		"	10.0		111	70-130				
Tetrachloroethylene	9.58		"	10.0		95.8	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.0		"	10.0		100	70-130				
trans-1,2-Dichloroethylene	10.3		"	10.0		103	70-130				
trans-1,3-Dichloropropylene	8.74		"	10.0		87.4	70-130				
Trichloroethylene	11.2		"	10.0		112	70-130				
Trichlorofluoromethane (Freon 11)	9.27		"	10.0		92.7	70-130				
Vinyl acetate	4.77		"	10.0		47.7	70-130	Low Bias			
Vinyl bromide	9.83		"	10.0		98.3	70-130				
Vinyl Chloride	8.76		"	10.0		87.6	70-130				
Surrogate: p-Bromofluorobenzene	10.2		"	10.0		102	72-118				



Notes and Definitions

QL-03	This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
CCV-A	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to detected analytes only.
<hr/>	
*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.

For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



Field Chain-of-Custody Record - AIR

Page 1 of 1

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

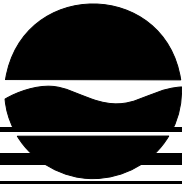
York Project No. 16G0568

YOUR Information Company: <u>Laurel Env. Ass.</u> Address: <u>53 West Mills Rd.</u> <u>Huntington Station, NY</u> Phone No. <u>631 673 0612</u> Contact Person: <u>Scott</u> E-Mail Address: <u>labresults@laurelenv.com</u>		Report To: Company: <u>Scott</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		Invoice To: Company: <u>Kathy</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		YOUR Project ID <u>255 Randolph St</u> Purchase Order No. _____ Samples from: CT <input type="checkbox"/> NY <input checked="" type="checkbox"/> NJ <input type="checkbox"/>		Turn-Around Time RUSH - Same Day <input type="checkbox"/> RUSH - Next Day <input type="checkbox"/> RUSH - Two Day <input type="checkbox"/> RUSH - Three Day <input type="checkbox"/> RUSH - Four Day <input type="checkbox"/> Standard(5-7 Days) <input type="checkbox"/>		Report Type/Deliverables Summary Report _____ Summary w/ QA Summary _____ CT RCP Package _____ NY ASP A Package _____ NY ASP B/CLP Pkg _____ NJDEP Reduced _____ Electronic Deliverables: EDD (Specify Type) _____ Standard Excel _____ Regulatory Comparison Excel _____	
Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until all questions by York are resolved.											
Samples Collected/Authorized By (Signature) <u>Albert Kim</u> Name (printed)		Air Matrix Codes AI - INDOOR Ambient Air AO - OUTDOOR Amb. Air AE - Vapor Extraction Well/ Process Gas/Effluent AS - SOIL Vapor/Sub-Slab		TO15 Volatiles and Other Gas Analyses EPA TO-15 List EPA TO-14A List Tentatively Identified Compounds Air VPH Helium Methane OTHER		Detection Limits Required ≤ 1 ug/m ³ NYSDEC VI Limits (VI - report instructions) NJDEP low level Routine Survey Other		Special Instructions			

Comments <u>12Bads 7-15-16 1230pm</u> Samples Received By <u>Grace</u> Date/Time <u>7-15-16 1640</u> Samples Relinquished By <u>Grace</u> Date/Time <u>7-15-16 1640</u>	Choose Analyses Needed from the Menu Above and Enter Below 70-15	
	Canister Vacuum Before Sampling (in. Hg)	Canister Vacuum After Sampling (in. Hg)
	Sampling Media 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓ 6 Liter Summa canister ✓ Tedlar Bag ✓	

APPENDIX B

Part 375-6.8(a) Protection of Groundwater Soil Cleanup Objectives



Department of Environmental Conservation

Division of Environmental Remediation

6 NYCRR PART 375

Environmental Remediation Programs

Subparts 375-1 to 375- 4 & 375-6

Effective December 14, 2006

New York State Department of Environmental Conservation

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16 ^f	16 ^f	16 ^f	16 ^f	13 ^f	16 ^f
Barium	7440-39-3	350 ^f	400	400	10,000 ^d	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5 ^f	4.3	9.3	60	4	7.5
Chromium, hexavalent ^h	18540-29-9	22	110	400	800	1 ^e	19
Chromium, trivalent ^h	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 ^d	50	1,720
Total Cyanide ^h		27	27	27	10,000 ^d	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63 ^f	450
Manganese	7439-96-5	2,000 ^f	2,000 ^f	10,000 ^d	10,000 ^d	1600 ^f	2,000 ^f
Total Mercury		0.81 ^j	0.81 ^j	2.8 ^j	5.7 ^j	0.18 ^f	0.73
Nickel	7440-02-0	140	310	310	10,000 ^d	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9 ^f	4 ^f
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 ^d	10,000 ^d	10,000 ^d	109 ^f	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100 ^a	500 ^b	1,000 ^c	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 ^e	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 ^e	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 ^e	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04 ^g	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100 ^a	100 ^a	500 ^b	1,000 ^c	0.04 ^g	0.25
Dibenzofuran	132-64-9	14	59	350	1,000 ^c	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan II	33213-65-9	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan sulfate	1031-07-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	1,000 ^c
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100 ^a	100 ^a	500 ^b	1,000 ^c	20	98
Acenaphthylene	208-96-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	107
Anthracene	120-12-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benz(a)anthracene	56-55-3	1 ^f	1 ^f	5.6	11	NS	1 ^f
Benzo(a)pyrene	50-32-8	1 ^f	1 ^f	1 ^f	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 ^f	1 ^f	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1 ^f	3.9	56	110	NS	1 ^f
Dibenz(a,h)anthracene	53-70-3	0.33 ^e	0.33 ^e	0.56	1.1	NS	1,000 ^c
Fluoranthene	206-44-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Fluorene	86-73-7	100 ^a	100 ^a	500 ^b	1,000 ^c	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 ^f	0.5 ^f	5.6	11	NS	8.2
m-Cresol	108-39-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Naphthalene	91-20-3	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
p-Cresol	106-44-5	34	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8 ^e	0.8 ^e
Phenanthrene	85-01-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Phenol	108-95-2	100 ^a	100 ^a	500 ^b	1,000 ^c	30	0.33 ^e
Pyrene	129-00-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Volatiles							
1,1,1-Trichloroethane	71-55-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33
1,2-Dichlorobenzene	95-50-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02 ^f
cis-1,2-Dichloroethene	156-59-2	59	100 ^a	500 ^b	1,000 ^c	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1 ^e	0.1 ^e
Acetone	67-64-1	100 ^a	100 ^b	500 ^b	1,000 ^c	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100 ^a	100 ^a	500 ^b	1,000 ^c	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33 ^e	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100 ^a	100 ^a	500 ^b	1,000 ^c	100 ^a	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100 ^a	500 ^b	1,000 ^c	NS	0.93
Methylene chloride	75-09-2	51	100 ^a	500 ^b	1,000 ^c	12	0.05
n-Propylbenzene	103-65-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	3.9
sec-Butylbenzene	135-98-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	11
tert-Butylbenzene	98-06-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100 ^a	100 ^a	500 ^b	1,000 ^c	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100 ^a	100 ^a	500 ^b	1,000 ^c	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).

NS=Not specified. See [Technical Support Document \(TSD\)](#).

Footnotes

^a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

^b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

^c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

^d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

^e For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

^f For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

^g This SCO is derived from data on mixed isomers of BHC.

^h The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

ⁱ This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

^j This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

APPENDIX C

NYSDOH Soil Vapor/Indoor Air Matrices

Table 3.2 General format of a decision matrix

Sub-slab Vapor Concentration of Volatile Chemical (mcg/m³)	Indoor Air Concentration of Volatile Chemical (mcg/m³)		
	Concentration Range 1	Concentration Range 2	Concentration Range 3
Concentration Range 1	ACTION	ACTION	ACTION
Concentration Range 2	ACTION	ACTION	ACTION
Concentration Range 3	ACTION	ACTION	ACTION

Indoor air and sub-slab vapor concentration ranges in a matrix are selected based on a number of considerations in addition to health risks. For example, factors that are considered when selecting the ranges include, but are not limited to, the following:

- human health risks (i.e., cancer and non-cancer health effects) associated with exposure to the volatile chemical in air;
- the NYSDOH's guidelines for volatile chemicals in air [Table 3.1];
- background concentrations of volatile chemicals in air [Section 3.2.4];
- analytical capabilities currently available; and
- attenuation factors (i.e., the ratio of indoor air to sub-slab vapor concentrations).

3.4.2 Matrices

The NYSDOH has developed two matrices, which are included at the end of Section 3.4, to use as tools in making decisions when soil vapor may be entering buildings. The first decision matrix was originally developed for TCE and the second for PCE. As summarized in Table 3.3, four chemicals have been assigned to the two matrices to date.

Table 3.3 Volatile chemicals and their decision matrices

Chemical	Soil Vapor/Indoor Air Matrix*
Carbon tetrachloride	Matrix 1
Tetrachloroethene (PCE)	Matrix 2
1,1,1-Trichloroethane (1,1,1-TCA)	Matrix 2
Trichloroethene (TCE)	Matrix 1

*The decision matrices are available at the end of Section 3.4.

Because the matrices are risk management tools and consider a number of factors, the NYSDOH intends to assign chemicals to one of these two matrices, if possible. For example, if a chemical other than those already assigned to a matrix is identified as a chemical of concern during a soil vapor intrusion investigation, assignment of that chemical into one of the existing decision matrices will be considered by the NYSDOH. Factors that will be considered in assigning a chemical to a matrix include, but are not limited to, the following:

- a. human health risks, including such factors as a chemical's ability to cause cancer, reproductive, developmental, liver, kidney, nervous system, immune system or other effects, in animals and humans and the doses that may cause those effects;
- b. the data gaps in its toxicologic database;
- c. background concentrations of volatile chemicals in indoor air [Section 3.2.4]; and
- d. analytical capabilities currently available.

If the NYSDOH determines that the assignment of the chemical into an existing matrix is inappropriate, then the NYSDOH will either modify an existing matrix or develop a new matrix.

To use the matrices appropriately as a tool in the decision-making process, the following should be considered:

- a. The matrices are generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- b. Indoor air concentrations detected in samples collected from the building's basement or, if the building has a slab-on-grade foundation, from the building's lowest occupied living space should be used.
- c. Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- d. When current exposures are attributed to sources other than vapor intrusion, the agencies should be provided documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix and to support assessment and follow-up by the agencies.

3.4.3 Description of recommended actions

Actions recommended in the matrix are based on the relationship between sub-slab vapor concentrations and corresponding indoor air concentrations. They are intended to address both potential and current human exposures and include the following:

a. *No further action*

When the volatile chemical is not detected in the indoor air sample and the concentration detected in the corresponding sub-slab vapor sample is not expected to substantially affect indoor air quality.

b. *Take reasonable and practical actions to identify source(s) and reduce exposures*

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile chemical-containing products in places where people do not spend much time, such as a garage or shed). Resampling may also be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

d. *Monitor*

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is appropriate to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be appropriate to determine whether existing building conditions (e.g., positive pressure HVAC systems) are maintaining the desired mitigation endpoint and to determine whether changes are appropriate.

The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions.

e. *Mitigate*

Mitigation is appropriate to minimize current or potential exposures associated with soil vapor intrusion. Methods to mitigate exposures related to soil vapor intrusion are described in Section 4.

f. *Monitor / Mitigate*

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

Soil Vapor/Indoor Air Matrix 1

October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 0.25	0.25 to < 1	1 to < 5.0	5.0 and above
< 5	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
5 to < 50	5. No further action	6. MONITOR	7. MONITOR	8. MITIGATE
50 to < 250	9. MONITOR	10. MONITOR / MITIGATE	11. MITIGATE	12. MITIGATE
250 and above	13. MITIGATE	14. MITIGATE	15. MITIGATE	16. MITIGATE

No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX 1

This matrix summarizes the minimum actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.25 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples, a minimum reporting limit of 5 micrograms per cubic meter is recommended for buildings with full slab foundations, and 1 microgram per cubic meter for buildings with less than a full slab foundation.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion to occur is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions may be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including the identified source of the volatile chemicals, the environmental remediation program, and site-specific and building-specific conditions. For example, to the extent that all site data and site conditions demonstrate that soil vapor intrusion is not occurring and that the potential for soil vapor intrusion to occur is not likely, the soil vapor intrusion investigation would be considered complete. In general, if indoor exposures represent a concern due to indoor sources, then the State will provide guidance to the property owner and/or tenant on ways to reduce their exposure. If indoor exposures represent a concern due to outdoor sources, then the NYSDEC will decide who is responsible for further investigation and any necessary remediation. Depending upon the outdoor source, this responsibility may or may not fall upon the party conducting the soil vapor intrusion investigation.

Soil Vapor/Indoor Air Matrix 2

October 2006

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)			
	< 3	3 to < 30	30 to < 100	100 and above
< 100	1. No further action	2. Take reasonable and practical actions to identify source(s) and reduce exposures	3. Take reasonable and practical actions to identify source(s) and reduce exposures	4. Take reasonable and practical actions to identify source(s) and reduce exposures
100 to < 1,000	5. MONITOR	6. MONITOR / MITIGATE	7. MITIGATE	8. MITIGATE
1,000 and above	9. MITIGATE	10. MITIGATE	11. MITIGATE	12. MITIGATE

No further action:

Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures.

Take reasonable and practical actions to identify source(s) and reduce exposures:

The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

MONITOR:

Monitoring, including sub-slab vapor, basement air, lowest occupied living space air, and outdoor air sampling, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MITIGATE:

Mitigation is needed to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system, and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

MONITOR / MITIGATE:

Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

See additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX 2

This matrix summarizes the minimum actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate building-specific conditions (e.g., dirt floor in basement, crawl spaces, etc.) and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, resampling may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Additionally, actions more protective of public health than those specified within the matrix may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action is usually undertaken for reasons other than public health (e.g., seeking community acceptance, reducing excessive costs, etc.).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of vapor contamination, nor does it preclude remediating contaminated soil vapors or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 3 micrograms per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples, a minimum reporting limit of 5 micrograms per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion to occur is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions may be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including the identified source of the volatile chemicals, the environmental remediation program, and site-specific and building-specific conditions. For example, to the extent that all site data and site conditions demonstrate that soil vapor intrusion is not occurring and that the potential for soil vapor intrusion to occur is not likely, the soil vapor intrusion investigation would be considered complete. In general, if indoor exposures represent a concern due to indoor sources, then the State will provide guidance to the property owner and/or tenant on ways to reduce their exposure. If indoor exposures represent a concern due to outdoor sources, then the NYSDEC will decide who is responsible for further investigation and any necessary remediation. Depending upon the outdoor source, this responsibility may or may not fall upon the party conducting the soil vapor intrusion investigation.

APPENDIX D

NYSDEC TOGS Standards and Guidance Values - GA

MEMORANDUM

*** NOTICE ***

This document has been developed to provide Department staff with guidance on how to ensure compliance with statutory and regulatory requirements, including case law interpretations, and to provide consistent treatment of similar situations. This document may also be used by the public to gain technical guidance and insight regarding how the department staff may analyze an issue and factors in their consideration of particular facts and circumstances. This guidance document is not a fixed rule under the State Administrative Procedure Act section 102(2)(a)(i). Furthermore, nothing set forth herein prevents staff from varying from this guidance as the specific facts and circumstances may dictate, provided staff's actions comply with applicable statutory and regulatory requirements. This document does not create any enforceable rights for the benefit of any party.

Previous Date: October 22, 1993

Reissued Date: JUNE 1998

TO: Bureau Directors, Regional Water Engineers, Section Chiefs

SUBJECT: Division of Water Technical and Operational Guidance Series (1.1.1)

AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
AND GROUNDWATER EFFLUENT LIMITATIONS

(Originator - John Zambrano/Scott Stoner)

PURPOSE

The primary purpose of this document is to provide a compilation of ambient water quality guidance values and groundwater effluent limitations for use where there are no standards (in 6 NYCRR 703.5) or regulatory effluent limitations (in 703.6). For the convenience of the reader, the standards in 703.5 and groundwater effluent limitations in 703.6 are included in this document. The values in this document (guidance and regulatory) are used in Department programs, including the SPDES permit program.

DISCUSSION

This document combines and revises the previous editions of TOGS 1.1.1 (ambient values) and 1.1.2 (groundwater effluent limitations). The main reason for the revision is to include revised and added ambient standards and effluent limitations resulting from the amendments to 6 NYCRR Parts 700 - 706, effective March 12, 1998. Ambient guidance values are also added for over 100 substances, largely based on the application of the Principal Organic Contaminant (POC) value to surface waters classified as sources of water supply.

GUIDANCE

This TOGS presents Division of Water ambient water quality standards and guidance values and groundwater effluent limitations. The authority for these values is derived from Article 17 of the Environmental Conservation Law and 6 NYCRR Parts 700-706, Water Quality Regulations.

This TOGS is divided into two Parts. Part I describes and lists ambient standards and guidance values. Part II describes and lists groundwater effluent limitations.

Although the reader may be tempted to turn immediately to the tables containing the ambient or effluent values, the following cautionary note is important: Many substances for which there are standards, guidance values and effluent limitations are not individually listed or identified in the tables, but are included as part of "group" entries such as "Principal Organic Contaminant." A careful reading of the text of Parts I and II is needed to ensure proper use of this document.

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PART I AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values for toxic and non-conventional pollutants are presented in Table 1. This Table includes all of the Division's numerical standards and guidance values established as of the date of this document except standards for coliforms and dissolved oxygen. The reader is referred to Part 703 for the excepted numerical standards and for the Department's narrative water quality standards.

Section A of this Part provides an explanation of ambient water quality standards and guidance values in the format of the column headings in Table 1. Section B, relying on the background of Section A, provides a procedure to help determine whether or not there is a standard or guidance value for a particular substance. Included in this section are instructions on determining the applicability of the POC general groundwater standard to specific substances. Section C provides guidance on certain aspects of development, interpretation and use of standards and guidance values.

A. EXPLANATION OF AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

Ambient water quality standards and guidance values are presented in Table 1. Table 1 includes columns for "Substance (CAS No.)," "Water Classes," "Standard," "Guidance Value," "Type" and "Basis Code." This section describes these terms. Standards and guidance values are described first to facilitate understanding.

1. Standard and Guidance Value

Standards and guidance values are ambient water quality values that are set to protect the state's waters. They both are derived according to scientific procedures that are in regulation (6 NYCRR Part 702).

A standard is a value that has been promulgated and placed into regulation. The standards for the surface water and groundwater classes are extracted from Part 703 of Title 6. Surface water and groundwater standards were last revised effective March 12, 1998.

A guidance value may be used where a standard for a substance or group of substances has not been established for a particular water class and type of value (section 702.15). All guidance values as of the date of this document are listed in Table 1 of this TOGS.

Standards and guidance values are the maximum allowable concentration in units of ug/L, unless otherwise indicated. Where standards or guidance values are expressed as a function of hardness, hardness is in units of parts per million (ppm), expressed as calcium carbonate, and the resulting value is in ug/L. Also, in such hardness functions, the term "exp" represents the base e exponential function.

"ND" means a non-detectable concentration by the approved analytical methods referenced in section 700.3.

The "general organic guidance value," described in 702.15, is misunderstood by some. This value does not automatically apply in the absence of a standard or specific guidance value. For this value to be applied to an individual substance, the Department must determine that certain toxicological data requirements have been met. As of the date of this TOGS, the only substances for which the Division has made this determination are listed in Table 1.

2. Substance (CAS No.)

The substance or group of substances (entry) for which a standard or guidance value has been derived is presented in this column in alphabetical order. The Chemical Abstract Service Registry (CAS) Number(s) are given, where applicable, to provide positive identification. Because a substance may be known by names other than the one used in this document, identification of the CAS number can be useful for locating the substance. An index of CAS numbers is provided at the end of the document.

Group entries fit into one of three categories, as described below. For each such entry, a Remark will indicate whether the standard(s) or guidance value(s) apply to the sum of the substances or to each substance individually.

Interpretation of Group Entries

- a. Where the entry consists of two or more specific substances, with or without CAS Numbers (e.g.: Aldrin and Dieldrin), the entry includes only the specific substances listed.
- b. Where the entry is the name of a group of substances, with CAS numbers listed (e.g.: Dichlorotoluenes), the entry includes only those substances for which the CAS Numbers are listed.
- c. Where the entry is the name of a group of substances, without CAS Numbers (e.g.: Principal organic contaminant), the entry includes all substances that belong to the group, unless otherwise noted. The specific substances in the group may not be listed in the entry or the index. A determination of the specific substances encompassed by the standard(s) or guidance value(s), therefore, may be necessary.

The principal organic contaminant (POC) standard for groundwater is the largest and most complex of this third type of group entry. It is a general standard that applies individually to a virtually unlimited number of substances in six chemical classes. Because of the importance of this general groundwater standard, instructions for determining its applicability to specific substances are included in Section C, below.

3. Water Classes and Type

Standards and guidance values are developed for specific classes of fresh and saline surface waters and fresh groundwaters for protection of the best uses assigned to each class. Best uses are described in Part 701. Standards and guidance values are further designated as to "Type." Values for protection of sources of drinking water are designated Health (Water Source) and noted by H(WS). Similarly, values for protection of human consumers of fish are designated as Health (Fish Consumption) and noted by H(FC). Values for protection of aquatic life from chronic effects are designated Aquatic (Chronic) and noted as A(C). Values for protection of aquatic life from acute effects are designated Aquatic (Acute) and noted as A(A). Values for protection of wildlife are designated as Wildlife and noted as W. Values for protection from aesthetic considerations are designated as Aesthetic and noted as E. Designation of the Type of value determines the applicability of section 702.15, which concerns derivation of guidance values.

A summary description of best usage protections, water classes and type of values related to toxic pollutants is presented below. The groupings of Water Classes and Type presented for the summary description are those that frequently appear in Table 1. A complete description of the water classifications is provided in Part 701.

<u>Water Classes</u>	<u>Type</u>	<u>Protection For</u>
A, A-S, AA, AA-S	H(WS)	Source of Drinking Water (surface water)
GA	H(WS)	Source of Drinking Water (groundwater)
A, A-S, AA, AA-S, B, C, D	H(FC)	Human Consumption of Fish (fresh waters)
SA, SB, SC, I, SD	H(FC)	Human Consumption of Fish (saline waters)
A, A-S, AA, AA-S, B, C	A(C)	Fish Propagation (fresh waters)
A, A-S, AA, AA-S, B, C, D	A(A)	Fish Survival (fresh waters)
SA, SB, SC, I	A(C)	Fish Propagation (saline waters)
SA, SB, SC, I, SD	A(A)	Fish Survival (saline waters)
A, A-S, AA, AA-S, B, C, D	W	Wildlife Protection (fresh waters)
SA, SB, SC, I, SD	W	Wildlife Protection (saline waters)
A, A-S, AA, AA-S, B, C, D, GA	E	Aesthetic (fresh waters)
SA, SB, SC, I, SD	E	Aesthetic (saline waters)

For many substances, more than one Type of value will be listed for a specific water class. In these situations, all values apply and may be used to derive the most stringent limitations.

4. Basis Code

The letters in this column designate the specific procedure used to derive the standard or guidance value. The key to the letter designations is provided in Table 2.

B. HOW TO LOCATE AMBIENT STANDARD OR GUIDANCE VALUE

This section contains instructions on how to determine whether the Division has an ambient standard or guidance value for a substance. As described above, many substances with standards or guidance values are included in “group” entries but not individually identified, or are listed by a different name. Therefore, the absence of a specific entry for a substance name does not necessarily mean that there is no standard or guidance value. The procedures below should assist the user, but are not guaranteed. The user may want to contact the Division’s Standards and Special Studies Section before assuming that there is no standard or guidance value for a particular substance.

1. Recommended Procedure for Determining if Standard or Guidance Value Exists

- Step 1. Look up substance by name(s) in Table 1. If found, confirm identity by CAS number, if listed. If substance is not found, go to Step 2.
- Step 2. Using CAS number and the CAS number index, determine the entry name and location of the substance. If CAS number is not in index, go to Step 3.
- Step 3. Entries for metals and some other substances, e.g., nitrate, do not contain CAS numbers. The entry for a metal includes all forms of the metal, metallic and in compounds, unless otherwise specified. The nitrate entry includes all compounds containing nitrate. There is no entry for “sodium nitrate” for instance, but there are entries for sodium and for nitrate. Therefore, look in Table 1 for the components of a metallic or ionic compound. If not found, go to Step 4.
- Step 4. Determine whether the substance is included in any of the groups listed below that has a standard or guidance value listed for the water class(es) of interest. Detailed instructions for determining the applicability of the principal organic contaminant (POC) groundwater standard are provided below.

Alkyl diphenyl oxide sulfonates
Aminomethylene phosphonic acid salts
Aryltriazoles
Boric acid, Borates and Metaborates
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans
Foaming agents

Gross alpha radiation
Gross beta radiation
Isothiazolones, total
Linear alkyl benzene sulfonates (LAS)
Methylbenz(a)anthracenes
Phenolic compounds (total phenols)
Phenols, total chlorinated
Phenols, total unchlorinated
Polybrominated biphenyls
Polychlorinated biphenyls
Principal organic contaminant
Quaternary ammonium compounds
Sulfides, total

2. Determination of Applicability of POC Groundwater Standard to Individual Substances

The POC standard for groundwater (Table 1) is a general standard that applies individually to an unlimited number of substances in six chemical classes. Some, but by no means all of the individual POCs are listed in Table 1. Consequently, the applicability of this standard to specific substances must be determined.

The POC standard was originally developed by the New York State Department of Health (DOH) for drinking water. The definitions of the six POC classes (6 NYCRR section 700.1 and Table 4 of this TOGS), obtained from the DOH regulations, are definitive for the first two classes, but require interpretation for the others. Furthermore, some substances that meet the definition of a particular POC class may not be regulated by the POC standard because they have a more stringent specific standard. It is, therefore, important to follow sequentially the steps below for determining the applicability of the POC groundwater standard.

It should be noted that the POC applies as a general standard only to groundwater.

The recommended procedure consists of five steps. These steps must be followed in sequential order to avoid making an incorrect determination. They include reference to three tables within this TOGS, the use of definitions for two POC classes, and how to obtain assistance.

Step 1. Check Table 1 of this TOGS. If the substance is listed in Table 1 as having either a specific groundwater standard (POC or other) or groundwater guidance value, that listed value applies and the reader should not go further. If not, go on to Step 2.

Step 2. Check Table 3 of this TOGS, which is a partial list of substances to which the POC groundwater standard does not apply. If the substance is listed in Table 3, the standard does not apply and the reader should not go further. If the substance is not in Table 3, go

on to Step 3.

- Step 3. Compare the substance with the definitions of POC classes 1 and 2, below. If it meets either of these definitions, the POC groundwater standard applies and the reader should not go further. If it does not meet either definition, or if the reader is uncertain whether it does, go on to Step 4.

Definitions of POC Classes 1 and 2:

Class 1 - Halogenated alkane*: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromide (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero.

Class 2 - Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.

- Step 4. Although the definitions of the remaining classes are in regulation and reproduced in Table 4, determinations beyond this point involve interpretations, including chemical comparisons with previously determined substances. The user, therefore, should contact the Standards and Special Studies Section (Scott Stoner (518-485-5824) or John Zambrano (518-457-6997)) for assistance. They will make the determination, consulting with the DOH as needed. Provision of the CAS number and structure of the substance will facilitate the determination.

*Note: This definition does not mention the specific exclusions listed in the definition in regulation (6 NYCRR 700.1 and Table 4) because those excluded substances are listed in Table 1 of this TOGS and thus covered by Step 1 of this procedure

C. DEVELOPMENT, INTERPRETATION AND USE OF AMBIENT STANDARDS AND GUIDANCE VALUES

1. Development of Standards and Guidance Values

Guidance values are developed as needed with priorities primarily reflecting greater expected or observed occurrence in the environment and greater toxicity. Most requests for development of guidance values originate through the use and

discharge information that is generated through the State Pollutant Discharge Elimination System (SPDES) permit program. Standards are proposed for rule making with similar priority considerations.

As stated previously, a guidance value may be utilized where a standard has not been adopted for a substance. Guidance values that have been developed for surface waters and groundwaters are presented in Table 1. If a substance is judged to pose a threat to the environment and if no standard or guidance value is presented in Table 1 for that substance and water class, a request for development of a guidance value should be made to the Standards and Special Studies Section.

2. Analytical Methods

Section 700.3 provides the analytical requirements to determine compliance with water quality standards and guidance values. These regulations include specific analytical references and also refer to "...other methods approved by the department..." The Division of Water maintains a compilation of methods approved by the department in a separate Technical and Operational Guidance Series (TOGS) document.

There are a number of water quality standards and guidance values for which there is no approved analytical procedure. Use of these values should be accompanied by the identification of an acceptable analytical method.

3. SPDES Effluent Limits

Ambient water quality standards and guidance values are used to derive water quality-based effluent limitations for SPDES permits. Instruction for the derivation of these limitations is provided in separate TOGS documents. There are, however, a number of topics that warrant discussion here.

a. Hydrologic Flow Base and Averaging Period

The derivation of water quality based effluent limitations from ambient water quality standards or guidance values requires selection of a receiving water flow and the specification of an averaging period for the effluent limitation. Their selection will be a function of the variability of the receiving water flow and effluent load and the time period associated with the critical adverse effect. In general, standards and guidance values that are based on adverse effects that develop over time periods greater than a month will receive effluent limitations based on the minimum average 30 consecutive day receiving water flow with a one-in-ten year occurrence (MA30CD/10) and calculated as a monthly average. Values based on shorter-term adverse effects will generally receive effluent limitations based on MA7CD/10 flow and calculated as a daily maximum. Specific determinations, however, are made at the time of permit issuance.

b. Chemical Forms

Standards and guidance values apply to all forms of the substances unless otherwise specified.

Certain ambient standards and guidance values apply to a specific toxic form rather than all forms of the substance. Changes in the form of a substance can occur in the receiving water. As a result, the form of the substance that is specified as an effluent limitation may differ from the form of the ambient standard or guidance value.

c. Groundwater Effluent Limitations

Groundwater effluent limitations are discussed in Part II of this document.

d. Total of Organic Chemicals

Subparagraph 702.16(b)(3) of the water quality regulations specifies, for the purpose of deriving effluent limitations for surface water, an ambient value of 100 ug/L for the total of organic substances having a standard or guidance value established pursuant to the human-health methodologies. The substances included in this total are all of the organic substances listed in Table 1 of this TOGS that have a H(W) standard or guidance value less than 100 ug/L for surface water.

Table 1

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Acenaphthene (83-32-9)	A, A-S, AA, AA-S, B, C		5.3	A(C)	
	A, A-S, AA, AA-S, B, C, D		48	A(A)	
	SA, SB, SC, I		6.6	A(C)	
	SA, SB, SC, I, SD		60	A(A)	
	A, A-S, AA, AA-S	20		E	U
	GA		20	E	U
Acetone (67-64-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrolein (107-02-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylamide (79-06-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Acrylic acid (79-10-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Acrylonitrile (107-13-1)	A, A-S, AA, AA-S		0.07	H(WS)	A
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Alachlor (15972-60-8)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Aldicarb (116-06-3)	A, A-S, AA, AA-S	7		H(WS)	B
	GA	*		H(WS)	
Remark:	* Refer to entry for "Aldicarb and Methomyl."				
Aldicarb and Methomyl (116-06-3;16752-77-5)	GA	0.35*		H(WS)	F
Remark:	* Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aldicarb sulfone (1646-88-4)	A, A-S, AA, AA-S GA		2* 2*	H(W) H(W)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldicarb sulfoxide (1646-87-3)	A, A-S, AA, AA-S GA		4* 4*	H(W) H(W)	G G
Remark:	* This substance did not receive a review beyond determining the existence of a Specific MCL. A more in-depth review, currently underway, could lead to a more (but not less) stringent guidance value.				
Aldrin (309-00-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	ND * *	0.002 *	H(W) H(W) H(FC) H(FC) H(FC)	A F
Remark:	* Refer to entry for "Aldrin and Dieldrin."				
Aldrin and Dieldrin (309-00-2; 60-57-1)	A, A-S, AA, AA-S, B, C, D SA, SB, SC, SD I	0.001* 0.001*	0.001*	H(FC) H(FC) H(FC)	
Remark:	* Applies to the sum of these substances.				
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	*	50 50	H(W) H(W) A(C)	Z Z
Remark:	* Refer to entry for "Quaternary ammonium compounds."				
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(W) H(W)	Z Z
Remark:	* Applies to each alkyl diphenyl oxide sulfonate individually.				
Allyl chloride (107-05-1)	A, A-S, AA, AA-S GA	**	5*	H(W) H(W)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aluminum, ionic (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	100*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Ametryn (834-12-8)	A, A-S, AA, AA-S GA	50	50	H(W) H(W)	Z J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4-Aminobiphenyl (92-67-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	* * ** **		E E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(WS) H(WS)	Z Z
Remark:	* Applies to each aminomethylene phosphonic acid salt individually.				
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	A, A-S, AA, AA-S GA		1* 1*	H(WS) H(WS)	B B
Remark:	* Values listed apply to sum of these substances.				
3-Aminotoluene (108-44-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Aminotoluene (106-49-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable)	A, A-S, AA, AA-S	2,000*		H(W.S)	H
	GA	2,000*		H(W.S)	H
	A, A-S, AA, AA-S, B, C	**		A(C)	
	D	**		A(A)	

Remarks: * $\text{NH}_3 + \text{NH}_4^+$ as N.** Un-ionized ammonia as NH_3 ; tables below provide the standard in ug/L at varying pH and temperature for different classes and specifications. Linear interpolation between the listed pH values and temperatures is applicable.

Classes A,A-S, AA, AA-S, B, C with the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	70

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	0.7	0.9	1.3	1.9	2.6	3.3
6.75	1.2	1.7	2.3	3.3	4.7	6.6
7.00	2.1	2.9	4.2	5.9	8.3	11
7.25	3.7	5.2	7.4	11	15	19
7.50	6.6	9.3	13	19	26	33
7.75	11	15	22	31	43	59
8.0-9.0	13	18	25	35	50	70

Class D

pH	0°C	5°C	10°C	15°C	20°C	25°C
6.50	9.1	13	18	26	36	51
6.75	15	21	30	42	59	84
7.00	23	33	46	66	93	131
7.25	34	48	68	95	140	190
7.50	45	64	91	130	180	260
7.75	56	80	110	160	220	320
8.0-9.0	65	92	130	180	260	370

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

Total Ammonia (mg/L NH₃)

Classes A, A-S, AA, AA-S, B, C with the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	2.5	2.4	2.2	2.2	1.5	1.0	.73
6.75	2.5	2.4	2.2	2.2	1.5	1.0	.73
7.00	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.25	2.5	2.4	2.2	2.2	1.5	1.0	.74
7.50	2.5	2.4	2.2	2.2	1.5	1.1	.74
7.75	2.3	2.2	2.1	2.0	1.4	.99	.71
8.00	1.5	1.4	1.4	1.3	.93	.66	.47
8.25	.87	.82	.78	.76	.54	.39	.28
8.50	.49	.47	.45	.44	.32	.23	.17
8.75	.28	.27	.26	.27	.19	.15	.11
9.00	.16	.16	.16	.16	.13	.10	.08

Classes A, A-S, AA, AA-S, B, C without the (T) or (TS) Specification

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	2.5	2.4	2.2	2.2	2.1	1.5	1.0
6.75	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.00	2.5	2.4	2.2	2.2	2.1	1.5	1.0
7.25	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.50	2.5	2.4	2.2	2.2	2.1	1.5	1.1
7.75	2.3	2.2	2.1	2.0	1.9	1.4	1.0
8.00	1.5	1.4	1.3	1.3	1.3	.93	.67
8.25	.87	.82	.78	.76	.76	.54	.40
8.50	.49	.47	.45	.44	.45	.33	.25
8.75	.28	.27	.26	.27	.27	.21	.16
9.00	.16	.16	.16	.16	.17	.14	.11

Class D

pH	0°C	5°C	10°C	15°C	20°C	25°C	30°C
6.50	35	33	31	30	29	29	20
6.75	32	30	28	27	27	26	19
7.00	28	26	25	24	23	23	16
7.25	23	22	20	20	19	19	14
7.50	17	16	16	15	15	15	10
7.75	12	11	11	11	10	10	7.3
8.00	8.0	7.5	7.1	6.9	6.8	6.8	4.9
8.25	4.5	4.2	4.1	4.0	3.9	4.0	2.9
8.50	2.6	2.4	2.3	2.3	2.3	2.4	1.8
8.75	1.4	1.4	1.3	1.4	1.4	1.5	1.1
9.00	.86	.83	.83	.86	.91	1.0	.82

This table provides total ammonia concentrations that will contain the un-ionized ammonia concentration at the level of the standard at the respective pH and temperatures based on relationships established in USEPA 1985, Ambient Water Quality Criteria for Ammonia - 1984. Office of Water, Criteria & Standards Division, Washington, D.C. 20460. EPA 440/5-85-001. January 1985. (Cited, Thurston, R.V., R.C. Russo, and K. Emerson. 1979. Aqueous ammonia equilibrium - tabulation of percent un-ionized ammonia. EPA Ecol. Res. Ser. EPA-600/3-79-091. Environmental Research Laboratory, U.S. Environmental Protection Agency, Duluth, MN: 427 p.)

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Aniline (62-53-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Anthracene (120-12-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D		50 50 3.8 35	H(WS) H(WS) A(C) A(A)	Z Z
Antimony (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	3 3		H(WS) H(WS)	B B
Arsenic (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	50 25 150* 340* 63* 120*		H(WS) H(WS) A(C) A(A) A(C) A(C) A(A)	G F
Remark:	* Dissolved arsenic form.				
Aryltriazoles (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50* 50*	H(WS) H(WS)	Z Z
Remark:	* Applies to each aryltriazole individually.				
Asbestos (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	* *		H(WS) H(WS)	G G
Remark:	* 7,000,000 fibers (longer than 10 um)/L.				
Atrazine (1912-24-9)	A, A-S, AA, AA-S GA		3* 7.5	H(WS) H(WS)	G F
Azinphosmethyl (86-50-0)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C SA, SB, SC I		0.07 4.4 0.005* 0.01 0.01	H(WS) H(WS) A(C) A(C) A(C)	A F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Azobenzene (103-33-3)	A, A-S, AA, AA-S GA		0.5 *	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Barium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	1,000 1,000		H(WS) H(WS)	G F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Benefin (1861-40-1)	GA	35		H(WS)	F
Benz(a)anthracene (56-55-3)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
	A, A-S, AA, AA-S, B, C		0.03	A(C)	
	A, A-S, AA, AA-S, B, C, D		0.23	A(A)	
Benzene (71-43-2)	A, A-S, AA, AA-S	1		H(WS)	A
	GA	1		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	10		H(FC)	A
	SA, SB, SC, I, SD	10		H(FC)	A
	A, A-S, AA, AA-S, B, C		210	A(C)	
	A, A-S, AA, AA-S, B, C, D		760	A(A)	
	SA, SB, SC, I		190	A(C)	
	SA, SB, SC, I, SD		670	A(A)	
Benzidine (92-87-5)	A, A-S, AA, AA-S		0.02	H(WS)	A
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.1**		A(C)	
	D	0.1**		A(A)	
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Benzisothiazole (271-61-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Benzo(b)fluoranthene (205-99-2)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(k)fluoranthene (207-08-9)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Benzo(a)pyrene (50-32-8)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D		0.0012	H(FC)	
	SA, SB, SC, I, SD		6 x 10 ⁻⁴	H(FC)	
Beryllium (CAS No. Not Applicable)	A, A-S, AA, AA-S		3	H(WS)	B
	GA		3	H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remarks:	* 11 ug/L, when hardness is less than or equal to 75 ppm; 1,100 ug/L when hardness is greater than 75 ppm. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1'-Biphenyl (92-52-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethoxy)methane (111-91-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloroethyl)ether (111-44-4)	A, A-S, AA, AA-S GA	1.0	0.03	H(WS) H(WS)	A F
Bis(chloromethyl)ether (542-88-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-chloro-1-methylethyl)ether (108-60-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bis(2-ethylhexyl)phthalate (117-81-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	5 5 0.6		H(WS) H(WS) A(C)	A A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		125* 125*	H(WS) H(WS)	B B
Remarks:	* Applies as boron equivalents. Values listed apply to the sum of these substances.				
Boron (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	1,000 10,000* 1,000		H(WS) A(C) A(C) A(C)	H
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Bromacil (314-40-9)	GA	4.4		H(WS)	F
Bromide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		2,000 2,000	H(WS) H(WS)	B B
Bromobenzene (108-86-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromochloromethane (74-97-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Bromodichloromethane (75-27-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromoform (75-25-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Bromomethane (74-83-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butachlor (23184-66-9)	GA	3.5		H(WS)	F
cis-2-Butenal (15798-64-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenal (123-73-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
cis-2-Butenenitrile (1190-76-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-2-Butenenitrile (627-26-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butoxyethoxyethanol (112-34-5)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butoxypropanol (5131-66-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butylate (2008-41-5)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Butylbenzene (104-51-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
sec-Butylbenzene (135-98-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
tert-Butylbenzene (98-06-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Butyl benzyl phthalate (85-68-7)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Butyl isopropyl phthalate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Cadmium (CAS No. Not Applicable)	A, A-S, AA, AA-S	5		H(WS)	B,G
	GA	5		H(WS)	B,G
	SA, SB, SC, I, SD		2.7	H(FC)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	7.7		A(C)	
	SD	21		A(A)	
Remarks:	* (0.85) exp(0.7852 [ln (ppm hardness)] - 2.715) ** (0.85) exp(1.128 [ln (ppm hardness)] - 3.6867) Aquatic Type standards apply to dissolved form.				
Captan (133-06-2)	GA	18		H(WS)	F
Carbaryl (63-25-2)	GA	29		H(WS)	F
Carbofuran (1563-66-2)	A, A-S, AA, AA-S	15		H(WS)	B
	GA		15	H(WS)	B
	A, A-S, AA, AA-S, B, C	1.0*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Carbon tetrachloride (56-23-5)	A, A-S, AA, AA-S		0.4	H(WS)	A
	GA	5		H(WS)	F
Carboxin (5234-68-4)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Chloramben (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
Chloranil (118-75-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlordane (57-74-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	2×10^{-5}		H(FC)	A
	SA, SB, SC, I, SD	2×10^{-5}		H(FC)	A
Chloride (CAS No. Not Applicable)	A, A-S, AA, AA-S	250,000		H(WS)	H
	GA	250,000		H(WS)	H

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	A, A-S, AA, AA-S	$7 \times 10^{-7*}$		H(WS)	A
	GA	$7 \times 10^{-7*}$		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	$6 \times 10^{-10*}$		H(FC)	A
	SA, SB, SC, I, SD	$6 \times 10^{-10*}$		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	$3.1 \times 10^{-9**}$		W	
	SA, SB, SC, I, SD	$3.1 \times 10^{-9**}$		W	
Remarks:	<p>* Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans that are listed in the table below as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD).</p> <p>The 2,3,7,8-TCDD equivalent for a congener for the H(WS) standards is obtained by multiplying the concentration of that congener by its Toxicity Equivalency Factor (TEF) from the table below. The 2,3,7,8-TCDD equivalent for a congener for the H(FC) standards is obtained by multiplying the concentration of that congener by its TEF and its Bioaccumulation Equivalency Factor (BEF) from the table below.</p> <p>** Applies only to 2,3,7,8-TCDD</p>				
<u>CONGENER</u>		<u>TEF</u>		<u>BEF</u>	
2,3,7,8-Tetrachlorodibenzo-p-dioxin		1		1	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		0.5		0.9	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		0.1		0.3	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		0.1		0.1	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		0.1		0.1	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		0.01		0.05	
Octachlorodibenzo-p-dioxin		0.001		0.01	
2,3,7,8-Tetrachlorodibenzofuran		0.1		0.8	
1,2,3,7,8-Pentachlorodibenzofuran		0.05		0.2	
2,3,4,7,8-Pentachlorodibenzofuran		0.5		1.6	
1,2,3,4,7,8-Hexachlorodibenzofuran		0.1		0.08	
1,2,3,6,7,8-Hexachlorodibenzofuran		0.1		0.2	
2,3,4,6,7,8-Hexachlorodibenzofuran		0.1		0.7	
1,2,3,7,8,9-Hexachlorodibenzofuran		0.1		0.6	
1,2,3,4,6,7,8-Heptachlorodibenzofuran		0.01		0.01	
1,2,3,4,7,8,9-Heptachlorodibenzofuran		0.01		0.4	
Octachlorodibenzofuran		0.001		0.02	
Chlorine, Total Residual (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	5		A(C)	
	D	19		A(A)	
	SA, SB, SC, I	7.5		A(C)	
	SD	13		A(A)	
2-Chloroaniline (95-51-2)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	<p>* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.</p> <p>** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.</p>				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3-Chloroaniline (108-42-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloroaniline (106-47-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorobenzene (108-90-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C, D	400		H(FC)	B
	SA,SB, SC, I, SD	400		H(FC)	B
	A, A-S, AA, AA-S, B, C	5		A(C)	
	SA, SB, SC, I		5	A(C)	
	A, A-S, AA, AA-S	20		E	U
	D	50		E	V
	SD		50	E	V
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorobenzotrifluoride (98-56-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1-Chlorobutane (109-69-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroethane (75-00-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroform (67-66-3)	A, A-S, AA, AA-S GA	7 7		H(WS) H(WS)	A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chloromethyl methyl ether (107-30-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Chloronaphthalene (91-58-7)	A, A-S, AA, AA-S GA	10	10	E E	U U
2-Chloronitrobenzene (88-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloronitrobenzene (121-73-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloronitrobenzene (100-00-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chloroprene (126-99-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chlorothalonil (1897-45-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Chlorotoluene (95-49-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chlorotoluene (108-41-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chlorotoluene (106-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Chloro-o-toluidine (95-69-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
5-Chloro-o-toluidine (95-79-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Chloro-1,1,1-trifluoropropane (460-35-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Chromium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	50 50 * **		H(WS) H(WS) A(C) A(A)	G G
Remarks:	* (0.86) exp(0.819 [ln (ppm hardness)] + 0.6848)				
	** (0.316) exp(0.819 [ln (ppm hardness)] + 3.7256)				
	Aquatic Type standards apply to dissolved form and do not include hexavalent chromium.				
Chromium (hexavalent) (CAS No. Not Applicable)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	50 11* 16* 54** 1,200**		H(WS) A(C) A(A) A(C) A(C) A(A)	F
Remarks:	* Applies to dissolved form.				
	** Applies to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Chrysene (218-01-9)	A, A-S, AA, AA-S GA		0.002 0.002	H(WS) H(WS)	A A
Cobalt (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	5*	110	A(C) A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards and guidance value apply to acid-soluble form.					
Copper (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	200 200 * ** *** ****		H(WS) H(WS) A(C) A(A) A(C) A(A)	H H
Remarks: * (0.96) exp(0.8545 [ln (ppm hardness)] - 1.702) ** (0.96) exp(0.9422 [ln (ppm hardness)] - 1.7) *** Standard is 3.4 ug/L except in New York/New Jersey Harbor where it is 5.6 ug/L. **** Standard is 4.8 ug/L except in New York/New Jersey Harbor where it is 7.9 ug/L. Aquatic Type standards apply to dissolved form.					
Cyanide (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC I SD	200 200 9,000 9,000 5.2* 22* 1.0* 1.0*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	H H B B
Remark: * As free cyanide: the sum of HCN and CN ⁻ expressed as CN.					
Cyanogen bromide (506-68-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Cyanogen chloride (506-77-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dalapon (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	50*	50*	H(WS) H(WS)	Z J
Remark:	* Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.				
p,p'-DDD (72-54-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.3 0.3 8×10^{-5} 8×10^{-5} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDE (72-55-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 7×10^{-6} 7×10^{-6} * *		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Refer to entry for "p,p'-DDT."				
p,p'-DDT (50-29-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 1×10^{-5} 1×10^{-5} $1.1 \times 10^{-5*}$ $1.1 \times 10^{-5*}$		H(WS) H(WS) H(FC) H(FC) W W	A A A A
Remark:	* Applies to the sum of p,p'-DDD, p,p'-DDE and p,p'-DDT				
Dechlorane Plus (13560-89-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Demeton (8065-48-3; 298-03-3; 126-75-0)	A, A-S, AA, AA-S, B, C SA, SB, SC I	0.1* 0.1	0.1	A(C) A(C) A(C)	
Remark:	* Standards and guidance value apply to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Diazinon (333-41-5)	GA A, A-S, AA, AA-S, B, C	0.7 0.08*		H(WS) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dibromobenzene (583-53-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dibromobenzene (108-36-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Dibromobenzene (106-37-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromochloromethane (124-48-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
1,2-Dibromo-3-chloropropane (96-12-8)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
Dibromodichloromethane (594-18-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dibromomethane (74-95-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dibromo-3-nitrilopropionamide and Dibromoacetoneitrile (10222-01-2; 3252-43-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D		50* 50* 20 50	H(WS) H(WS) A(C) A(A)	Z Z
Remarks:	Values listed apply to the sum of these substances, except as noted below.				
	* Applies to 2,2-dibromo-3-nitrilopropionamide only.				
Di-n-butyl phthalate (84-74-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Dicamba (1918-00-9)	GA	0.44		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dichlorobenzenes (95-50-1;541-73-1;106-46-7)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC, I		5**	A(C)	
	A, A-S, AA, AA-S	20***/30****		E	U
	D	50**		E	V
	SD		50**	E	V
Remarks:	* Applies to each isomer (1,2-, 1,3- and 1,4-dichlorobenzene) individually. ** Applies to the sum of 1,2-, 1,3- and 1,4-dichlorobenzene *** Applies to 1,3-dichlorobenzene only. **** Applies to 1,4-dichlorobenzene only. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
3,3'-Dichlorobenzidine (91-94-1)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dichlorobenzotrifluoride (328-84-7)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,4-Dichloro-2-butene (1476-11-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,4-Dichloro-2-butene (110-57-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorodifluoromethane (75-71-8)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remark:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1-Dichloroethane (75-34-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Dichloroethane (107-06-2)	A, A-S, AA, AA-S GA	0.6 0.6		H(WS) H(WS)	A A
1,1-Dichloroethene (75-35-4)	A, A-S, AA, AA-S GA	*	0.7	H(WS) H(WS)	A J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1,2-Dichloroethene (156-59-2)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2-Dichloroethene (156-60-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dichlorofluoromethane (75-43-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorophenol (120-83-2)	A, A-S, AA, AA-S GA	****	5*****	H(WS) H(WS)	I J
	A, A-S, AA, AA-S GA	0.3* **		E E	U
	A, A-S, AA, AA-S, B, C, D	***		E	
Remarks: *	Also see entry for "Phenolic compounds (total phenols)."				
**	Refer to entry for "Phenolic compounds (total phenols)."				
***	Refer to entry for "Phenols, total chlorinated."				
****	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
*****	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
2,4-Dichlorophenoxyacetic acid (94-75-7)	A, A-S, AA, AA-S GA	50 50		H(WS) H(WS)	G G
1,1-Dichloropropane (78-99-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Dichloropropane (78-87-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
1,3-Dichloropropane (142-28-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,2-Dichloropropane (594-20-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1-Dichloropropene (563-58-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Dichloropropene (542-75-6)	A, A-S, AA, AA-S GA	0.4* 0.4*		H(WS) H(WS)	A A
Remark:	* Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.				
2,3-Dichlorotoluene (32768-54-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dichlorotoluene (95-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dichlorotoluene (19398-61-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dichlorotoluene (118-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dichlorotoluene (95-75-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dichlorotoluene (25186-47-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dieldrin (60-57-1)	A, A-S, AA, AA-S	0.004		H(WS)	A
	GA	0.004		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-7}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-7}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.056		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.24		A(A)	
Di(2-ethylhexyl)adipate (103-23-1)	A, A-S, AA, AA-S	20		H(WS)	A
	GA	20		H(WS)	A
Diethyl phthalate (84-66-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2-Diisopropylbenzene (577-55-9)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Diisopropylbenzene (99-62-7)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,4-Diisopropylbenzene (100-18-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
N,N-Dimethylaniline (121-69-7)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
2,3-Dimethylaniline (87-59-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylaniline (95-68-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dimethylaniline (95-78-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dimethylaniline (87-62-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4-Dimethylaniline (95-64-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,5-Dimethylaniline (108-69-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,3'-Dimethylbenzidine (119-93-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethylbibenzyl (538-39-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Dimethyldiphenylmethane (4957-14-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Dimethylformamide (68-12-2)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
alpha, alpha-Dimethyl phenethylamine (122-09-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dimethylphenol (105-67-9)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	 1,000 1,000 * * **	50 50	H(WS) H(WS) H(FC) H(FC) E E E	Z Z B B
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dimethyl phthalate (131-11-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dimethyl tetrachloroterephthalate (1861-32-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
1,3-Dinitrobenzene (99-65-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrophenol (51-28-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S GA B, C, D	400 400 * * **	10 10	H(WS) H(WS) H(FC) H(FC) E E E	B B B B E
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
2,3-Dinitrotoluene (602-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4-Dinitrotoluene (121-14-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,5-Dinitrotoluene (619-15-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,6-Dinitrotoluene (606-20-2)	A, A-S, AA, AA-S GA	*	0.07	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
3,4-Dinitrotoluene (610-39-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,5-Dinitrotoluene (618-85-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Di-n-octyl phthalate (117-84-0)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Dinoseb (88-85-7)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Diphenamid (957-51-7)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Diphenylamine (122-39-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Diphenylhydrazines (122-66-7; 530-50-7)	A, A-S, AA, AA-S GA	ND**	0.05*	H(WS) H(WS)	A F
Remarks:	* Applies to 1,2-diphenylhydrazine (CAS No. 122-66-7) only. ** Applies to the sum of 1,1- and 1,2-diphenylhydrazine (CAS Nos. 530-50-7 and 122-66-7, respectively).				
Diquat (2764-72-9)	A, A-S, AA, AA-S GA	20* 20*		H(WS) H(WS)	B B
Remark:	* Applies to the concentration of diquat ion whether free or as an undissociated salt.				
Disulfoton (298-04-4)	GA	*		H(WS)	
Remark:	* Refer to entry for "Phorate and Disulfoton."				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1)	A, A-S, AA, AA-S		50*	H(WS)	B
	GA		50*	H(WS)	B
Remark: * Applies to sum of these substances.					
Dyphylline (479-18-5)	A, A-S, AA, AA-S	50		H(WS)	B
	GA		50	H(WS)	B
Endosulfan (115-29-7)	A, A-S, AA, AA-S, B, C	0.009		A(C)	
	D	0.22*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD	0.034		A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (d).					
Endothall (145-73-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Endrin (72-20-8)	A, A-S, AA, AA-S	0.2		H(WS)	G
	GA	ND		H(WS)	F
	A, A-S, AA, AA-S, B, C, D	0.002		H(FC)	
	SA, SB, SC, SD	0.002		H(FC)	
	I		0.002	H(FC)	
	A, A-S, AA, AA-S, B, C	0.036		A(C)	
	A, A-S, AA, AA-S, B, C, D	0.086		A(A)	
Endrin aldehyde (7421-93-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Endrin ketone (53494-70-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Ethylbenzene (100-41-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C		17	A(C)	
	A, A-S, AA, AA-S, B, C, D		150	A(A)	
	SA, SB, SC, I		4.5	A(C)	
	SA, SB, SC, I, SD		41	A(A)	
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Ethylene chlorohydrin (107-07-3)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Ethylene dibromide (106-93-4)	A, A-S, AA, AA-S	6×10^{-4}		H(WS)	A
	GA	6×10^{-4}		H(WS)	A
Ethylene glycol (107-21-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		500,000	A(C)	
	D		1,000,000	A(A)	
Ethylene oxide (75-21-8)	A, A-S, AA, AA-S		0.05	H(WS)	A
	GA		0.05	H(WS)	A
Ethylenethiourea (96-45-7)	GA	ND		H(WS)	F
Ferbam (14484-64-1)	GA	4.2		H(WS)	F
Fluometuron (2164-17-2)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Fluoranthene (206-44-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Fluorene (86-73-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		0.54	A(C)	
	A, A-S, AA, AA-S, B, C, D		4.8	A(A)	
	SA, SB, SC, I		2.5	A(C)	
	SA, SB, SC, I, SD		23	A(A)	
Fluoride (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,500		H(WS)	H
	GA	1,500		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	D	**		A(A)	
Remarks: * (0.02) $\exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ ** (0.1) $\exp(0.907 [\ln(\text{ppm hardness})] + 7.394)$ For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Foaming agents (CAS No. Not Applicable)	GA	500*		E	U
Remark: * Determined as methylene blue active substances (MBAS) or by other tests as specified by the Commissioner.					
Folpet (133-07-3)	GA	50		H(WS)	J
Glyphosate (1071-83-6)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Gross alpha radiation (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	* *		H(WS) H(WS)	G G
Remark: * 15 picocuries per liter, excluding radon and uranium.					
Gross beta radiation (CAS No. Not Applicable)	A, AA A-S, AA-S GA	* *	*	H(WS) H(WS) H(WS)	H H H
Remark: * 1,000 picocuries per liter, excluding strontium-90 and alpha emitters.					
Guaifenesin (93-14-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Heptachlor (76-44-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 2×10^{-4} 2×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Heptachlor epoxide (1024-57-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.03 0.03 3×10^{-4} 3×10^{-4}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobenzene (118-74-1)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 3×10^{-5} 3×10^{-5}		H(WS) H(WS) H(FC) H(FC)	A A A A
Hexachlorobutadiene (87-68-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C D SA, SB, SC I SD	0.5 0.5 0.01 0.01 1.0* 10* 0.3 3.0	 0.3	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(C) A(A)	B B B B
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
alpha-Hexachlorocyclohexane (319-84-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.01 0.01 0.002 0.002		H(WS) H(WS) H(FC) H(FC)	A A A A
beta-Hexachlorocyclohexane (319-85-7)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.04 0.04 0.007 0.007		H(WS) H(WS) H(FC) H(FC)	A A A A

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
delta-Hexachlorocyclohexane (319-86-8)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
epsilon-Hexachlorocyclohexane (6108-10-7)	A, A-S, AA, AA-S	0.04		H(WS)	A
	GA	0.04		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
gamma-Hexachlorocyclohexane (58-89-9)	A, A-S, AA, AA-S	0.05		H(WS)	A
	GA	0.05		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	0.008		H(FC)	A
	SA, SB, SC, I, SD	0.008		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	0.95		A(A)	
Hexachlorocyclopentadiene (77-47-4)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	0.45**		A(C)	
	D	4.5**		A(A)	
	SA, SB, SC	0.07		A(C)	
	I		0.07	A(C)	
	SD	0.7		A(A)	
	A, A-S, AA, AA-S	1.0		E	U
Remarks: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
Hexachloroethane (67-72-1)	A, A-S, AA, AA-S	5		H(WS)	A, I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C, D	0.6		H(FC)	A
	SA, SB, SC, I, SD	0.6		H(FC)	A
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Hexachlorophene (70-30-4)	A, A-S, AA, AA-S		5****	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S	**		E	
	GA	**		E	
	B,C,D	***		E	
Remarks: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "Phenolic compounds (total phenols)." *** Refer to entry for "Phenols, total chlorinated." **** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Hexachloropropene (1888-71-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
2-Hexanone (591-78-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Hexazinone (51235-04-2)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Hydrazine (302-01-2)	A, A-S, AA, AA-S, B, C D	* **		A(C) A(A)	
Remarks:	* 5 ug/L at less than 50 ppm hardness and 10 ug/L at greater than or equal to 50 ppm hardness. ** 50 ug/L at less than 50 ppm hardness and 100 ug/L at greater than or equal to 50 ppm hardness. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Hydrogen sulfide (7783-06-4)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	2.0* 2.0	2.0 ** **	A(C) A(C) A(C) E E	
Remarks:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). ** Refer to entry for "Sulfides, total." Aquatic Type standards and guidance value apply to undissociated form.				
Hydroquinone (123-31-9)	A, A-S, AA, AA-S, B, C D A, A-S, AA, AA-S GA B, C, D	2.2** 4.4** * * ***		A(C) A(A) E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). *** Refer to entry for "Phenols, total unchlorinated."				
1-Hydroxyethylidene- 1,1-diphosphonic acid (2809-21-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S	*		E	
	GA	*		E	
	B, C, D	**		E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)."				
	** Refer to entry for "Phenols, total unchlorinated."				
Indeno (1,2,3-cd) pyrene (193-39-5)	A, A-S, AA, AA-S		0.002	H(WS)	A
	GA		0.002	H(WS)	A
Iron (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	300**		A(C)	
	D	300**		A(A)	
	A, A-S, AA, AA-S	300		E	G
	GA	300*		E	F
Remarks:	* Also see standard for "Iron and Manganese."				
	** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Iron and Manganese (CAS No. Not Applicable)	GA	500*		E	F
Remark:	* Applies to the sum of these substances; also see individual standards for "Iron" and "Manganese."				
Isodecyl diphenyl phosphate (29761-21-5)	A, A-S, AA, AA-S, B, C	1.7*		A(C)	
	D	22*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Isodrin (465-73-6)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Isophorone (78-59-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Isopropalin (33820-53-0)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Isopropylbenzene (98-82-8)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA		H(WS)	J	
	A, A-S, AA, AA-S, B, C	2.6	A(C)		
	A, A-S, AA, AA-S, B, C, D	23	A(A)		
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2-Isopropyltoluene (527-84-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Isopropyltoluene (535-77-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Isopropyltoluene (99-87-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Isothiazolones, total (isothiazolinones) (includes 5-chloro-2-methyl-4-isothiazolin-3-one & 2-methyl-4-isothiazolin-3-one) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	1*		A(C)	
	D	10*		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Standards apply to the sum of these substances.				
Kepone (143-50-0)	GA	ND		H(WS)	F
Lead (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	25		H(WS)	F
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8		A(C)	
	SA, SB, SC, I, SD	204		A(A)	
Remarks:	* {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 4.297) ** {1.46203 - [ln (hardness) (0.145712)]} exp (1.273 [ln (hardness)] - 1.052) Aquatic Type standards apply to dissolved form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Linear alkyl benzene sulfonates (LAS) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	40*		A(C)	
Remarks:	* LAS with side chains greater than 13 carbons only; applies to the sum of these substances. * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Magnesium (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	35,000	35,000	H(WS) H(WS)	B B
Malathion (121-75-5)	GA A, A-S, AA, AA-S, B, C SA, SB, SC I	7.0 0.1* 0.1	0.1	H(WS) A(C) A(C) A(C)	F
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Mancozeb (8018-01-7)	GA	1.8		H(WS)	F
Maneb (12427-38-2)	GA	1.8		H(WS)	F
Manganese (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	300 300*		E E	G F
Remark:	* Also see entry for "Iron and Manganese."				
Mercaptobenzothiazole (149-30-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Mercury (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.7 0.7 7×10^{-4} * 7×10^{-4} * 0.77* 1.4* 0.0026* 0.0026*		H(WS) H(WS) H(FC) H(FC) A(C) A(A) W W	B B B B
Remark:	* Applies to dissolved form.				
Methacrylic acid (79-41-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methacrylonitrile (126-98-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Methomyl (16752-77-5)	GA	*		H(WS)	
Remark: * Refer to entry for "Aldicarb and Methomyl."					
Methoxychlor (72-43-5)	A, A-S, AA, AA-S	35		H(WS)	H
	GA	35		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.03*		A(C)	
	SA, SB, SC	0.03		A(C)	
	I		0.03	A(C)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).					
(1-Methoxyethyl) benzene (4013-34-7)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
(2-Methoxyethyl) benzene (3558-60-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
N-Methylaniline (100-61-8)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Methylbenz(a)anthracenes (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.002*	H(WS)	A
	GA		0.002*	H(WS)	A
Remark: * Applies to the sum of these substances.					
Methyl chloride (74-87-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	GA	0.44		H(WS)	F
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
4,4'-Methylene-bis-(N-methyl)- aniline (1807-55-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methylene bithiocyanate (6317-18-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C	1.0*	50 50	H(WS) H(WS) A(C)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Methylene chloride (75-09-2)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA,SB, SC, I, SD	5 * 200 200		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-(1-Methylethoxy)-1-butanol (31600-69-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Methylethyl-1,3-dioxolane (126-39-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl ethyl ketone (78-93-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Methyl iodide (74-88-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Methyl methacrylate (80-62-6)	GA	50		H(WS)	J

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Methylnaphthalene (91-57-6)	A, A-S, AA, AA-S, B, C		4.7	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
	SA, SB, SC, I		4.2	A(C)	
	SA, SB, SC, I, SD		38	A(A)	
Methyl parathion (298-00-0)	GA	*		H(WS)	
	A, A-S, AA, AA-S, B, C	*		A(C)	
Remark: * Refer to entry for "Parathion and Methyl parathion."					
alpha-Methylstyrene (98-83-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
2-Methylstyrene (611-15-4)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
3-Methylstyrene (100-80-1)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
4-Methylstyrene (622-97-9)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					
Metribuzin (21087-64-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA	50		H(WS)	J
Mirex (2385-85-5)	A, A-S, AA, AA-S	0.03		H(WS)	A
	GA	0.03		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.001*		A(C)	
	D	0.001*		A(A)	
	SA, SB, SC	0.001		A(C)	
	I		0.001	A(C)	
	SD		0.001	A(A)	
Remark: * For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Nabam (142-59-6)	GA	1.8		H(WS)	F

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Naphthalene (91-20-3)	A, A-S, AA, AA-S, B, C		13	A(C)	
	A, A-S, AA, AA-S, B, C, D		110	A(A)	
	SA, SB, SC, I		16	A(C)	
	SA, SB, SC, I, SD		140	A(A)	
	A, A-S, AA, AA-S	10		E	U
	GA		10	E	U
Niacinamide (98-92-0)	A, A-S, AA, AA-S	500		H(WS)	B
	GA		500	H(WS)	B
Nickel (CAS No. Not Applicable)	A, A-S, AA, AA-S	100		H(WS)	B
	GA	100		H(WS)	B
	A, A-S, AA, AA-S, B, C	*		A(C)	
	A, A-S, AA, AA-S, B, C, D	**		A(A)	
	SA, SB, SC, I	8.2		A(C)	
	SA, SB, SC, I, SD	74		A(A)	
Remarks:	* (0.997) exp (0.846 [ln (hardness)] + 0.0584) ** (0.998) exp (0.846 [ln (hardness)] + 2.255) Aquatic Type standards apply to dissolved form.				
Nitralin (4726-14-1)	GA	35		H(WS)	F
Nitrate (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Also see entry for "Nitrate and Nitrite."				
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	10,000*		H(WS)	G
	GA	10,000*		H(WS)	G
Remark:	* Applies to the sum of these substances; also see individual standards for "Nitrate" and "Nitrite."				
Nitrilotriacetic acid (CAS No. Not Applicable)	A, A-S, AA, AA-S	3*		H(WS)	A
	GA	3*		H(WS)	A
	A, A-S, AA, AA-S, B, C	5,000**		A(C)	
Remarks:	* Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less. ** Applies to nitrilotriacetate. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Nitrite (expressed as N) (CAS No. Not Applicable)	A, A-S, AA, AA-S	1,000*		H(WS)	G
	GA	1,000*		H(WS)	G
	A, A-S, AA, AA-S, B, C	**		A(C)	
Remarks:	* Also see entry for "Nitrate and Nitrite." ** Standard is 100 ug/L for warm water fishery waters and 20 ug/L for cold water fishery waters. ** For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2-Nitroaniline (88-74-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitroaniline (99-09-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitroaniline (100-01-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Nitrobenzene (98-95-3)	A, A-S, AA, AA-S	0.4		H(WS)	A
	GA	0.4		H(WS)	A
	A, A-S, AA, AA-S	30		E	U
N-Nitrosodiphenylamine (86-30-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2-Nitrotoluene (88-72-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3-Nitrotoluene (99-08-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
4-Nitrotoluene (99-99-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
5-Nitro-o-toluidine (99-55-8)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Octachlorostyrene (29082-74-4)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	0.2 0.2 6×10^{-6} 6×10^{-6}		H(WS) H(WS) H(FC) H(FC)	B B B B
Oxamyl (23135-22-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Paraquat (4685-14-7)	GA	3.0		H(WS)	F
Parathion (56-38-2)	GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D	* * 0.065		H(WS) A(C) A(A)	
Remark:	* Refer to entry for "Parathion and Methyl parathion."				
Parathion and Methyl parathion (56-38-2; 298-00-0)	GA A, A-S, AA, AA-S, B, C	1.5* 0.008**		H(WS) A(C)	F
Remarks:	* Applies to the sum of these substances. ** Applies to the sum of these substances. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Pendimethalin (40487-42-1)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachlorobenzene (608-93-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Pentachloroethane (76-01-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Pentachloronitrobenzene (82-68-8)	GA	ND		H(WS)	F
Pentachlorophenol (87-86-5)	A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D A, A-S, AA, AA-S GA B, C, D	* ** *** *** ****		A(C) A(A) E E E	
Remarks:	* exp [1.005 (pH) - 5.134] ** exp [1.005 (pH) - 4.869] *** Refer to entry for "Phenolic compounds (total phenols)." **** Refer to entry for "Phenols, total chlorinated."				
Phenanthrene (85-01-8)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD		50 50 5.0 45 1.5 14	H(WS) H(WS) A(C) A(A) A(C) A(A)	Z Z
Phenol (108-95-2)	A, A-S, AA, AA-S GA B, C, D	* * **		E E E	
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Refer to entry for "Phenols, total unchlorinated."				
Phenolic compounds (total phenols) (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	1* 1*		E E	U U
Remark:	* Applies to the sum of these substances.				
Phenols, total chlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 1.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				
Phenols, total unchlorinated (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D	* * 5.0**		E E E	V
Remarks:	* Refer to entry for "Phenolic compounds (total phenols)." ** Applies to the sum of these substances.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,2-Phenylenediamine (95-54-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3-Phenylenediamine (108-45-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,4-Phenylenediamine (106-50-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenyl ether (101-84-8)	A, A-S, AA, AA-S GA	10	10	E E	U U
Phenylhydrazine (100-63-0)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Phenylpropanolamine (14838-15-4)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
3-Phenyl-1-propene (637-50-3)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
cis-1-Phenyl-1-propene (766-90-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1-Phenyl-1-propene (873-66-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Phorate (298-02-2)	GA	*		H(WS)	
Remark: * Refer to entry for "Phorate and Disulfoton."					
Phorate and Disulfoton (298-02-2; 298-04-4)	GA	ND*		H(WS)	F
Remark: * Applies to sum of these substances.					
Phosphorus (CAS No. Not Applicable)	A, A-S, AA, AA-S, B		20*	**	**
Remarks: * Applies only where the letter "P" (ponds, lakes and reservoirs) appears in the Water Index Number, excluding Lake Champlain. The department is considering site-specific values for Lake Champlain and for Lake Ontario and Lake Erie, both of which do not have the letter "P" designation.					
** Based on aesthetic effects for primary and secondary contact recreation.					
Picloram (CAS No. Not Applicable)	A, A-S, AA, AA-S		50*	H(WS)	Z
	GA	50*		H(WS)	J
Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.					
Polybrominated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each congener individually.					
** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each congener individually.					
Polychlorinated biphenyls (CAS No. Not Applicable)	A, A-S, AA, AA-S	0.09*		H(WS)	A
	GA	0.09*		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	1×10^{-6} *		H(FC)	A
	SA, SB, SC, I, SD	1×10^{-6} *		H(FC)	A
	A, A-S, AA, AA-S, B, C, D	1.2×10^{-4} *		W	
	SA, SB, SC, I, SD	1.2×10^{-4} *		W	
Remark: * Applies to the sum of these substances.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Principal organic contaminant (CAS No. Not Applicable)	GA	5		H(WS)	J
<p>Remarks: This standard applies to any and every individual substance, whether listed in this Table or not, that is in one of the principal organic contaminant classes as defined in 6 NYCRR 700.1 <u>except</u> any substance that has a H(WS) Type standard for class GA waters (other than 5 ug/L with Basis Code J) listed elsewhere in this Table.</p> <p>For the convenience of the reader, the principal organic contaminant standard of 5 ug/L (Basis Code J), is listed in this Table for some (but not all) substances regulated by this standard.</p> <p>A less stringent guidance value for an individual substance may be substituted for this standard if so determined by the Commissioner of the New York State Department of Health.</p>					
Prometon (1610-18-0)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Propachlor (1918-16-7)	GA	35		H(WS)	F
Propanil (709-98-8)	GA	7.0		H(WS)	F
Propazine (139-40-2)	GA	16		H(WS)	F
Propham (122-42-9)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
n-Propylbenzene (103-65-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
<p>Remark: * The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.</p>					
Pyrene (129-00-0)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
	A, A-S, AA, AA-S, B, C		4.6	A(C)	
	A, A-S, AA, AA-S, B, C, D		42	A(A)	
Pyridine (110-86-1)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
Quaternary ammonium compounds (including dimethyl benzyl ammonium chloride & dimethyl ethyl benzyl ammonium chloride) (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	10*		A(C)	
<p>Remarks: * Applies to the sum of these substances.</p> <p>* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).</p>					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Radium 226 (CAS No. Not Applicable)	A, AA	*		H(WS)	H
	A-S, AA-S		*	H(WS)	H
	GA	*		H(WS)	H
Remark: * 3 picocuries per liter; also see entry for "Radium 226 and Radium 228."					
Radium 226 and Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
	GA	*		H(WS)	G
Remark: * 5 picocuries per liter; Applies to the sum of these substances.					
Radium 228 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	
	GA	*		H(WS)	
Remark: * Refer to entry for "Radium 226 and Radium 228."					
Selenium (CAS No. Not Applicable)	A, A-S, AA, AA-S	10		H(WS)	G
	GA	10		H(WS)	G
	A, A-S, AA, AA-S, B, C	4.6*		A(C)	
Remark: * Aquatic Type standard applies to dissolved form.					
Silver (CAS No. Not Applicable)	A, A-S, AA, AA-S	50		H(WS)	G
	GA	50		H(WS)	F
	A, A-S, AA, AA-S, B, C	0.1*		A(C)	
	D	**		A(A)	
	SD	2.3		A(A)	
Remarks: * Applies to ionic silver. ** exp (1.72 [ln (ppm hardness)] - 6.52) Standards for D and SD Classes apply to acid-soluble form. For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).					
Simazine (122-34-9)	A, A-S, AA, AA-S	0.5		H(WS)	A
	GA	0.5		H(WS)	A
Sodium (CAS No. Not Applicable)	GA	20,000		H(WS)	H
Strontium 90 (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remarks: * 8 picocuries per liter. If two or more radionuclides are present, the sum of their doses shall not exceed an annual potential dose of 4 millirems per year.					
Styrene (100-42-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
	A, A-S, AA, AA-S	50		E	U
Remarks: * This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.					

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Sulfate (CAS No. Not Applicable)	A, A-S, AA, AA-S GA	250,000 250,000		H(WS) H(WS)	G F
Sulfides, total (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C SA, SB, SC I A, A-S, AA, AA-S GA	** **	 ** 50* 50*	A(C) A(C) A(C) E E	 U U
Remarks:	Values listed apply to sum of these substances. * Expressed as hydrogen sulfide. ** Refer to entry for "Hydrogen Sulfide."				
Sulfite (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C	200*		A(C)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
Tebuthiuron (34014-18-1)	A, A-S, AA, AA-S GA	50	50	H(WS) H(WS)	Z J
Terbacil (5902-51-2)	GA	50		H(WS)	J
Terbufos (13071-79-9)	A, A-S, AA, AA-S GA		0.09 0.09	H(WS) H(WS)	B B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S GA	 * 10**	5*** 10**	H(WS) H(WS) E E	I J U U
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3,4-, 1,2,3,5-, and 1,2,4,5-tetrachlorobenzene) individually. ** Applies to the sum of 1,2,3,4-, 1,2,3,5- and 1,2,4,5-tetrachlorobenzene. *** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent specific MCL. Value applies to each isomer individually.				
1,1,1,2-Tetrachloroethane (630-20-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,2,2-Tetrachloroethane (79-34-5)	A, A-S, AA, AA-S GA	*	0.2	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Tetrachloroethene (127-18-4)	A, A-S, AA, AA-S	*	0.7	H(WS)	A
	GA			H(WS)	J
	A, A-S, AA, AA-S, B, C, D		1	H(FC)	
	SA, SB, SC, I, SD		1	H(FC)	
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrachloroterephthalic acid (2136-79-0)	GA	50		H(WS)	J
alpha, alpha, alpha, 4-Tetrachloro- toluene (5216-25-1)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tetrahydrofuran (109-99-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
1,2,3,4-Tetramethylbenzene (488-23-3)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3,5-Tetramethylbenzene (527-53-7)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4,5-Tetramethylbenzene (95-93-2)	A, A-S, AA, AA-S	**	5*	H(WS)	I
	GA			H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance..				
Thallium (CAS No. Not Applicable)	A, A-S, AA, AA-S		0.5	H(WS)	B
	GA		0.5	H(WS)	B
	A, A-S, AA, AA-S, B, C	8*		A(C)	
	D	20		A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Theophylline (58-55-9)	A, A-S, AA, AA-S GA	40	40	H(WS) H(WS)	B B
Thiram (137-26-8)	GA	1.8		H(WS)	F
Toluene (108-88-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 6,000 6,000	100 480 92 430	H(WS) H(WS) H(FC) H(FC) A(C) A(A) A(C) A(A)	I J B B
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,4-diamine (95-80-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,5-diamine (95-70-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Toluene-2,6-diamine (823-40-5)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
o-Toluidine (95-53-4)	A, A-S, AA, AA-S GA	*	0.6	H(WS) H(WS)	A J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tolyltriazole (29385-43-1)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Toxaphene (8001-35-2)	A, A-S, AA, AA-S	0.06		H(WS)	A
	GA	0.06		H(WS)	A
	A, A-S, AA, AA-S, B, C, D	6×10^{-6}		H(FC)	A
	SA, SB, SC, I, SD	6×10^{-6}		H(FC)	A
	A, A-S, AA, AA-S, B, C	0.005		A(C)	
	D	1.6*		A(A)	
	SA, SB, SC	0.005		A(C)	
	I		0.005	A(C)	
	SD		0.07	A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic standard if so determined under 702.15 (d).				
1,2,4-Tribromobenzene (615-54-3)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Tributyltin oxide (56-35-9)	A, A-S, AA, AA-S		50	H(WS)	Z
	GA		50	H(WS)	Z
2,4,6-Trichloroaniline (634-93-5)	A, A-S, AA, AA-S		5*	H(WS)	I
	GA	**		H(WS)	J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
	** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	A, A-S, AA, AA-S		5***	H(WS)	I
	GA	*		H(WS)	J
	A, A-S, AA, AA-S, B, C	5**		A(C)	
	SA, SB, SC	5**		A(C)	
	I		5**	A(C)	
	A, A-S, AA, AA-S	10**		E	U
	GA		10**	E	U
	D	50**		E	V
	SD	50**		E	V
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to each isomer (1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene) individually.				
	** Applies to the sum of 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene.				
	For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c).				
	*** This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. Value applies to each isomer individually.				
1,1,1-Trichloroethane (71-55-6)	A, A-S, AA, AA-S	5		H(WS)	I
	GA	*		H(WS)	J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloroethane (79-00-5)	A, A-S, AA, AA-S GA	1 1		H(WS) H(WS)	A A
Trichloroethene (79-01-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C, D SA, SB, SC, I, SD	5 * 40 40		H(WS) H(WS) H(FC) H(FC)	I J A A
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trichlorofluoromethane (75-69-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	GA	35		H(WS)	F
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	A, A-S, AA, AA-S GA	10 0.26		H(WS) H(WS)	G F
1,1,2-Trichloropropane (598-77-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,3-Trichloropropane (96-18-4)	A, A-S, AA, AA-S GA	0.04 0.04		H(WS) H(WS)	A A
cis-1,2,3-Trichloropropene (13116-57-9)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
trans-1,2,3-Trichloropropene (13116-58-0)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,4-Trichlorotoluene (94-99-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,2,6-Trichlorotoluene (2014-83-7)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
alpha,3,4-Trichlorotoluene (102-47-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,2-Trichlorotoluene (88-66-4)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
alpha,alpha,4-Trichlorotoluene (13940-94-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trichlorotoluene (7359-72-0)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,5-Trichlorotoluene (56961-86-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trichlorotoluene (2077-46-5)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trichlorotoluene (6639-30-1)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trichlorotoluene (23749-65-7)	A, A-S, AA, AA-S GA	*	0.34	H(WS) H(WS)	B J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Trifluralin (1582-09-8)	GA	35		H(WS)	F
1,2,3-Trimethylbenzene (526-73-8)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,2,4-Trimethylbenzene (95-63-6)	A, A-S, AA, AA-S GA	5 *		H(WS) H(WS)	I J
	A, A-S, AA, AA-S, B, C		33	A(C)	
	A, A-S, AA, AA-S, B, C, D		290	A(A)	
	SA, SB, SC, I		19	A(C)	
	SA, SB, SC, I, SD		170	A(A)	
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
1,3,5-Trimethylbenzene (108-67-8)	A, A-S, AA- AA-S GA	5 *		H(WS) H(WS)	I J
Remark: *	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,6-Trimethylpyridine (1462-84-6)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
2,4,6-Trimethylpyridine (108-75-8)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
sym-Trinitrobenzene (99-35-4)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,3,4-Trinitrotoluene (602-29-9)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks: *	This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL.				
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
2,3,6-Trinitrotoluene (18292-97-2)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,5-Trinitrotoluene (610-25-3)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
2,4,6-Trinitrotoluene (118-96-7)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
3,4,5-Trinitrotoluene (603-15-6)	A, A-S, AA, AA-S GA	**	5*	H(WS) H(WS)	I J
Remarks:	* This substance did not receive a review beyond determining that it is in a principal organic contaminant class and that it does not have a more stringent Specific MCL. ** The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.				
Triphenyl phosphate (115-86-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C D	4* 40*	50 50	H(WS) H(WS) A(C) A(A)	Z Z
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d).				
Tritium (CAS No. Not Applicable)	A, A-S, AA, AA-S	*		H(WS)	G
Remark:	* 20,000 picocuries per liter; if two or more radionuclides are present, the sum of their annual dose equivalent to the total body or any organ shall not exceed 4 millirems per year.				
Uranyl ion (CAS No. Not Applicable)	GA	5,000		H(WS)	H
Vanadium (CAS No. Not Applicable)	A, A-S, AA, AA-S, B, C D	14* 190*		A(C) A(A)	
Remark:	* For the waters of the Great Lakes System, the Department will substitute a guidance value for the aquatic Type standard if so determined under 702.15 (c) and (d). Aquatic Type standards apply to acid-soluble form.				

Table 1 (Continued)

NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES

JUNE 1998

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Vinyl chloride (75-01-4)	A, A-S, AA, AA-S GA	2	0.3	H(WS) H(WS)	A G
1,2-Xylene (95-47-6)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,3-Xylene (108-38-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 ** ** ** **	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Refer to entry for "1,4-Xylene."				
1,4-Xylene (106-42-3)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SA, SB, SC, I, SD	5 * 	 65** 590** 19** 170**	H(WS) H(WS) A(C) A(A) A(C) A(A)	I J
Remarks:	* The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance. ** Applies to the sum of 1,2-, 1,3- and 1,4-xylene.				
Zinc (CAS No. Not Applicable)	A, A-S, AA, AA-S GA A, A-S, AA, AA-S, B, C A, A-S, AA, AA-S, B, C, D SA, SB, SC, I SD A, A-S, AA, AA-S GA	 * ** 66 95 	2,000 2,000 5,000 5,000	H(WS) H(WS) A(C) A(A) A(C) A(A) E E	B B U U
Remarks:	Aquatic Type standards apply to dissolved form. * $\exp(0.85 [\ln(\text{ppm hardness})] + 0.50)$ ** $0.978 \exp(0.8473 [\ln(\text{ppm hardness})] + 0.884)$				
Zineb (12122-67-7)	GA	1.8		H(WS)	F
Ziram (137-30-4)	GA	4.2		H(WS)	F

TABLE 2
EXPLANATION OF BASIS CODES
IN TABLE 1

JUNE 1998

BASIS CODE	BASIS
A	Oncogenic, Human Health
B	Non-oncogenic, Human Health
F	Former Groundwater Regulations, 6 NYCRR 703.5(a)(3), Human Health or Aesthetics
G	Specific MCL, Human Health or Aesthetics
H	Former Use of or Reference to 10 NYCRR Part 170, Human Health or Aesthetics
I	Principal Organic Contaminant Classes, Human Health
J	Former Groundwater Reference to 10 NYCRR Subpart 5-1 General Standards, Human Health
U	Potable Water, Aesthetics
V	Aquatic Life, Aesthetics
Z	General Organic Guidance Value, Human Health

TABLE 3**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Acenaphthylene	208-96-8
Acephate	30560-19-1
Acetone cyanohydrin	75-86-5
Acetonitrile	75-05-8
Acetophenone	98-86-2
2-Acetylaminofluorene	53-96-3
Allyl alcohol	107-18-6
Anisole	100-66-3
Aramite	140-57-8
Benzaldehyde	100-52-7
Benzeneacetic acid	103-82-2
1,2-Benzenedicarboxaldehyde	643-79-8
Benzenepropanoic acid	501-52-0
Benzoic acid	65-85-0
Benzoic acid, ammonium salt	1863-63-4
Benzo(g,h,i)perylene	191-24-2
Benzo(e)pyrene	192-97-2
Benzyl alcohol	100-51-6
Benzyl chloride	100-44-7
Bis(pentabromophenyl)ether	1163-19-5
4-Bromophenylphenylether	101-55-3
Bromophos	2104-96-3

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Bronopol	52-51-7
1-Butanol	71-36-3
tert-Butyl alcohol	75-65-0
Cacodylic acid	75-60-5
Caprolactam	105-60-1
Captafol	2425-06-1
Carbazole	86-74-8
Carbon disulfide	75-15-0
Chloral	75-87-6
Chloroacetic acid	79-11-8
Chlorobenzilate	510-15-6
4-Chlorobenzoic acid	74-11-3
2-Chloroethyl vinyl ether	110-75-8
4-(4-Chloro-2-methylphenoxy) butyric acid	94-81-5
2-(4-Chloro-2-methylphenoxy) propionic acid	93-65-2
4-Chlorophenyl phenyl ether	7005-72-3
Chlorpyrifos	2921-88-2
Cimectacarb	95266-40-3
Clopyralid	1702-17-6
Cyanazine	21725-46-2
Cyclohexane	110-82-7
Cyclohexanol	108-93-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Cyclohexanone	108-94-1
Cyclohexanone oxime	100-64-1
Cyclohexene	110-83-8
Cyclohexylamine	108-91-8
Cyclopentanone	120-92-3
Cyclotrimethylenetrinitramine	121-82-4
2,4-DB	94-82-6
Decanal	112-31-2
Demeton	8065-48-3
Diallate	2303-16-4
Dibenz(a,h)anthracene	55-70-3
Dibenzofuran	132-64-9
Dibromoacetonitrile	3252-43-5
Dibutyltin chloride	683-18-1
Dibutyltin dilaurate	77-58-7
Dichloroacetic acid	79-43-6
2,3-Dichloro-1,4-napthoquinone	117-80-6
alpha, alpha -Dichlorotoluene	98-87-3
Dicyclopentadiene	77-73-6
Diethylamine	109-89-7
2-(Diethylamino)ethanol	100-37-8
Diethylene glycol	111-46-6

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Diethylene glycol monoethyl ether	111-90-0
Diethyl formamide	617-84-4
Diethyl maleate	141-05-9
o,o-Diethyl-o-2-pyrazinyl phosphorothioate	297-97-2
Diethyltin dycaprylate	2641-56-7
2,3-Dihydro-1,6-dimethyl-1H-indene	17059-48-2
2,3-Dihydro-1-methyl-1H-indene	767-58-8
Diisopropylamine	108-18-9
Diisopropyl ether	108-20-3
Dimethoate	60-51-5
3,3'-Dimethoxybenzidine	119-90-4
Dimethylamine	124-40-3
4-(Dimethylamino)azobenzene	60-11-7
7,12-Dimethylbenz(a)anthracene	57-97-6
Dimethylbenzylammonium chloride	1875-92-9
trans-1,4-Dimethylcyclohexane	2207-04-7
Dimethyldioxane	25136-55-4
Dimethyldithiocarbamate	79-45-8
Dimethylethylbenzylammonium chloride	5197-80-8
2,5-Dimethylfuran	625-86-5
1,1-Dimethylhydrazine	57-14-7
1,2-Dimethylhydrazine	540-73-8

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Dimethylphenylcarbinol	617-94-7
Dimethylterephthalate	120-61-6
1,4-Dioxane	123-91-1
Dodecanoic acid	143-07-7
Endosulfan I	959-98-8
Endosulfan II	33213-65-9
Endosulfan sulfate	1031-07-8
Epichlorohydrin	106-89-8
Ethion	563-12-2
2-Ethoxyethanol	110-80-5
2-Ethoxyethanol acetate	111-15-9
Ethyl acetate	141-78-6
Ethyl acrylate	140-88-5
Ethyl di-n-propylthiocarbamate (EPTC)	759-96-4
Ethylene cyanohydrin	109-78-4
Ethyl ether	60-29-7
Ethyl methacrylate	97-63-2
Ethyl methane sulfonate	62-50-0
Famphur	52-85-7
Formaldehyde	50-00-0
Formic acid	64-18-6
Furan	110-00-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Furazolidone	67-45-8
Furfural	98-01-1
Furium	531-82-8
Glycidaldehyde	765-34-4
n-Heptane	142-82-5
1-Heptanol	111-70-6
2-Heptanol	543-49-7
3-Heptanol	589-82-2
4-Heptanol	589-55-9
Hexamethylene diamine	124-09-4
Hexanate	25056-70-6
n-Hexane	110-54-3
3-Hexanone	589-38-8
Hydrazine	302-01-2
3-Hydroxycarbofuran	16655-82-6
alpha-Hydroxy-alpha-methylbenzeneacetic acid	515-30-0
1,3-Isobenzofurandione	85-44-9
1(3H)-Isobenzofuranone	87-41-2
Isobutyl alcohol	78-83-1
Isodecyl diphenylphosphate	29761-21-5
Isopropyl alcohol	67-63-0
Isopropylamine	75-31-0

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Isopropylbenzene hydroperoxide	80-15-9
Isosafrole	120-58-1
Isothiazolones	NA
Linear alkylbenzenesulfonates	NA
Linuron	330-55-2
2,5-Lutidine	589-93-5
Maleic anhydride	108-31-6
Maleic hydrazide	123-33-1
Malononitrile	109-77-3
Methacrylamide	79-39-0
Methanol	67-56-1
Methapyrilene	91-80-5
2-Methoxyethanol	109-86-4
2-Methoxyethanol acetate	110-49-6
2-Methoxy-5-nitroaniline	99-59-2
Methyl acetate	79-20-9
Methylacrylate	96-33-3
Methylamine	74-89-5
2-Methylanthracene	613-12-7
9-Methylanthracene	779-02-2
2-Methylbenzaldehyde	529-20-4
3-Methylbenzaldehyde	620-23-5

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
4-Methylbenzaldehyde	104-87-0
4-Methylbenzenemethanol	589-18-4
2-Methyl benzene sulfonamide	88-19-7
4-Methyl benzene sulfonamide	70-55-3
2-Methylbenzoic acid	118-90-1
3-Methylbenzoic acid	99-04-7
Methyl tert-butyl ether	1634-04-4
3-Methylcholanthrene	56-49-5
Methylcyclopentane	96-37-7
Methylmethanesulfonate	66-27-3
1-Methyl-4-(1-methylethenyl)cyclohexene	138-86-3
2-Methylnaphthalene	91-57-6
Methylolmethacrylamide	923-02-4
4-Methyl-2-pentanone	108-10-1
Methylphthalate	4376-18-5
Metolachlor	51218-45-2
Molinate	2212-67-1
1,4-Naphthoquinone	130-15-4
1-Naphthylamine	134-32-7
2-Naphthylamine	91-59-8
Nitrocyclohexane	1122-60-7
Nitrofurantoin	67-20-9

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Nitrofurazone	59-87-0
2-Nitropropane	79-46-9
4-Nitroquinoline-1-oxide	56-57-5
N-Nitrosodi-N-butylamine	924-16-3
N-Nitrosodiethylamine	55-18-5
N-Nitrosodimethylamine	62-75-9
N-Nitrosodipropylamine	621-64-7
N-Nitrosomethylethylamine	10595-95-6
N-Nitroso-N-methyl urea	684-93-5
N-Nitrosomorpholine	59-89-2
N-Nitrosopiperidine	100-75-4
N-Nitrosopyrrolidine	930-55-2
Nonanal	124-19-6
1-Nonanol	143-08-8
Octamethylpyrophosphoramine	152-16-9
Oxalic acid, benzyl ester	35448-14-7
Pebulate	1114-71-2
Pentamate	136-25-4
Phenacetin	62-44-2
alpha-Picoline	109-06-8
Polybutene(1-propene,2-methyl homopolymer)	9003-27-4
Prodiamine	29091-21-2

TABLE 3 (Continued)**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD****JUNE 1998****Note: Refer to Text of Part I for Explanation****(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
Profluralin	26399-36-0
Pronamide	23950-58-5
1-Propanol	71-23-8
1-Propene	115-07-1
Propionitrile	107-12-0
Propylene glycol	58-55-6
Propylene glycol monoethyl ether	19089-47-5
Propylene glycol monomethyl ether	1589-49-7
Propylene oxide	75-56-9
Quaternary ammonium compounds	NA
Quinoline	91-22-5
1,4-Quinone dioxide	105-11-3
Reserpine	50-55-5
Rhodamine WT	37299-86-8
Ronnel	299-84-3
Rotenone	83-79-4
Safrole	94-59-7
Sodium adipate, disodium salt	7486-38-6
Sodium diethyldithiocarbamate	148-18-5
Strychnine	57-24-9
Tetraethyl dithiopyrophosphate	3689-24-5
Tetraethyl lead	78-00-2
Tetraethyl tin	597-64-8

TABLE 3 (Continued)

**PARTIAL LIST OF SUBSTANCES NOT REGULATED BY THE
PRINCIPAL ORGANIC CONTAMINANT (POC) GROUNDWATER STANDARD**

JUNE 1998

Note: Refer to Text of Part I for Explanation

**(No standard or guidance value for groundwater is available
for these substances as of the date of this document)**

SUBSTANCE	CAS NO.
2-(Thiocyanomethylthio) benzothiazole	21564-17-0
Thiofanox	39196-18-4
Thiourea	62-56-6
Toluene diisocyanate	584-84-9
Triallate	2303-17-5
Trichloroacetic acid	76-03-9
alpha, alpha, alpha-Trichlorotoluene	98-07-7
Triethylamine	121-44-8
o,o,o-Triethylphosphorothioate	126-68-1
3,3,5-Trimethylcyclohexanone	873-94-9
Trimethyl phosphate	512-56-1
Vernolate	1929-77-7
Vinyl acetate	108-05-4
Warfarin	81-81-2
NA = Not Applicable	

TABLE 4

DEFINITION FOR PRINCIPAL ORGANIC CONTAMINANT CLASSES*

(excerpted from 6 NYCRR Section 700.1)

JUNE 1998

Principal organic contaminant classes means the following classes of organic chemicals.

- (1) Halogenated alkane: Compound containing carbon (C), hydrogen (H) and halogen (X) where X = fluorine (F), chlorine (Cl), bromine (Br) and/or iodine (I), having the general formula $C_nH_yX_z$, where $y + z = 2n + 2$; n, y and z are integer variables; n and z are equal to or greater than one and y is equal to or greater than zero. Specifically excluded from this class are chloroform, bromoform, bromodichloromethane and dibromochloromethane.
- (2) Halogenated ether: Compound containing carbon (C), hydrogen (H), oxygen (O) and halogen (X) (where X = F, Cl, Br and/or I) having the general formula $C_nH_yX_zO$, where $y + z = 2n + 2$; the oxygen is bonded to two carbons; n, y and z are integer variables; n is equal to or greater than two, y is equal to or greater than zero and z is equal to or greater than one.
- (3) Halobenzenes and substituted halobenzenes: Derivatives of benzene which have at least one halogen atom attached to the ring and which may or may not have straight or branched chain hydrocarbon, nitrogen or oxygen substituents.
- (4) Benzene and alkyl- or nitrogen-substituted benzenes: Benzene or a derivative of benzene which has either an alkyl- and/or a nitrogen-substituent.
- (5) Substituted, unsaturated hydrocarbons: A straight or branched chain unsaturated hydrocarbon compound containing one of the following: halogen, aldehyde, nitrile, amide.
- (6) Halogenated non-aromatic cyclic hydrocarbons: A non-aromatic cyclic compound containing a halogen.

*Note: Determining the applicability of the POC groundwater standard to a specific substance can be a complex process that should not be undertaken using these definitions alone. Refer to Section III of the Introduction of this TOGS (page 7) for instructions.

PART II GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

The Division of Water (DOW) regulates point source discharges to class GA groundwater primarily through the use of effluent limitations that have been established statewide. These effluent limitations are set at concentrations that should prevent contaminants from exceeding ambient groundwater standards and guidance values, which are applicable in the saturated zone. Class GA groundwaters are all fresh groundwaters. Groundwater effluent limitations are provided in Table 5 and discussed in this Part. (Ambient standards and guidance values that relate to these effluent limitations were provided in Table 1 of this TOGS and described in Part I).

A. DEFINITIONS

This section presents definitions for key terms that are used in the text and tables. The definitions are similar to the ones that appear in regulation, Part 700. Additional explanation is provided where appropriate.

1. "Groundwaters" mean those waters in saturated zones.
2. "Saturated zones" mean any extensive portion of the earth's crust that contains sufficient water to fill all interconnected voids or pore space.
3. "Fresh groundwaters" mean those groundwaters having a chloride concentration equal to or less than 250 mg/L or a total dissolved solids concentration equal to or less than 1,000 mg/L.
4. "Saline groundwaters" mean groundwaters having a chloride concentration of more than 250 mg/L or a total dissolved solids concentration of more than 1,000 mg/L.
5. "Groundwater standards" and "groundwater guidance values" both mean such measures of purity or quality for any groundwaters in relation to their reasonable and necessary use. "Groundwater standards" are established by the Department pursuant to section 17-0301 of the Environmental Conservation Law, which means the values are included in regulation. "Groundwater guidance values" are established by the Department pursuant to section 702.1 of Title 6, which means the specific values are not in regulation.

Such standards and guidance values are often referred to as ambient values in this document to emphasize that they apply to samples of groundwater and are distinct from effluent limitations, which apply to samples of wastewater at the point of discharge.

6. "Groundwater effluent limitations" mean any restriction on quantities, qualities, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into or allowed to run from an outlet or point source or any other discharge within the meaning of section 17-0501 of the Environmental Conservation Law into groundwater or unsaturated zones. Some groundwater effluent limitations are in regulation (703.6); the remainder are guidance.

B. GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

A groundwater effluent limitation is derived to prevent a contaminant from exceeding the ambient standard or guidance value in the saturated zone. An effluent limitation generally is set at or near the ambient value, partly on the assumption that for many toxic substances, sustained high percent removal in the unsaturated zone cannot be relied upon. The approach used provides a high degree of certainty that the ambient value will not be exceeded and also avoids the need for site-specific evaluations, which would be technically difficult, costly and time consuming.

Groundwater effluent limitations are presented in Table 5, alphabetically by substance. The same substance names as in Table 1 are used. The reader is cautioned that, as for ambient values, groundwater effluent limitations may apply to substances that may be identified only by a group entry, including "Principal organic contaminant." Guidance in Part I, Sections A and B should be useful to determining whether an effluent limitation exists for a particular substance.

The second column lists the groundwater effluent limitation in ug/L, unless otherwise noted. The third column, entitled "Category," provides information about the basis for the effluent limitation. (The Category is not the same as the Basis Code in Table 1.) The five Categories are as follows:

- Category A Effluent limitations that are in regulation (6 NYCRR 703.6)
- Category B Effluent limitations that are numerically equal to ambient guidance values, as provided in 702.16(c)(1).
- Category C Effluent limitations that are derived in this document for substances that have an ambient standard, but no corresponding effluent limitation in 703.6. (For organic substances, the effluent limitations have been set equal to the ambient standards. For metals, the effluent limitations have been set at twice the ambient standard.)
- Category D Effluent limitations for sodium and ammonia require case-by-case determinations. Significant removal of these substances can occur in the unsaturated zone and will be a function of site-specific factors.

Also, as indicated in Table 5, effluent limitations for radiological parameters will be established through Radiation Control Permits, Part 380.

As listed under “Organic substances, total” in Table 5, an effluent limitation of 100 ug/L for the total of certain organic substances is applicable, as provided in 702.16(c)(4). The substances that can be specified for this limitation are those organic substances that have an ambient groundwater standard or guidance value less than 100 ug/L. This includes all substances covered by the principal organic contaminant (POC) groundwater standard (Table 1) and other applicable “group” entries, whether they are listed individually in this TOGS or not.

C. IMPLEMENTATION OF GROUNDWATER EFFLUENT LIMITATIONS

1. Gross or Net Limitations.

Effluent limitations as listed in Table 5 are defined as gross limitations (i.e., without mathematical subtraction of the amounts present in intake water). These gross effluent limitations, however, may not be appropriate where the concentration of a substance in the receiving aquifer exceeds the effluent limitation. General guidance for these situations is provided in other TOGS documents relating to the preparation of SPDES permits.

2. Modifications of Effluent Limitations

Section 702.19 allows, under certain conditions, modification of a groundwater effluent limitation. This includes those effluent limitations in 703.6 and those derived as numerically equivalent to a H(WS) Type guidance value. The included limitations are thus those designated as Categories A and B in Table 5. Such modifications may be allowed where the applicant demonstrates that a less restrictive effluent limitation will be sufficient to prevent groundwater concentrations from exceeding the ambient value. SPDES applications for such modifications are governed by the Uniform Procedures Act and require public notice of the proposed modification.

3. Exceptions to Effluent Limitations

The water quality regulations, section 702.21, provide exceptions for three activities to the requirement to impose the numerical effluent limitations in Table 5. Effluent limitations for the two point source activities, i.e., certain sewage and land application systems, should be determined on a case-by-case basis to achieve or maintain ambient standards and guidance values.

Table 5
NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)
JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Acenaphthene (83-32-9)	20	B
Acetone (67-64-1)	50	B
Acrolein (107-02-8)	5	C
Acrylamide (79-06-1)	5	C
Acrylic acid (79-10-7)	50	B
Acrylonitrile (107-13-1)	5	C
Alachlor (15972-60-8)	0.5	A
Aldicarb (116-06-3)	*	
Remark: * See "Aldicarb and Methomyl."		
Aldicarb and Methomyl (116-06-3;16752-77-5)	0.35	A
Aldicarb sulfone (1646-88-4)	2	B
Aldicarb sulfoxide (1646-87-3)	4	B
Aldrin (309-00-2)	ND	A
Alkyl dimethyl benzyl ammonium chloride (68391-01-5)	50	B
Alkyl diphenyl oxide sulfonates (CAS No. Not Applicable)	50*	B
Remark: * Applies to each alkyl diphenyl oxide sulfonate individually.		
Allyl chloride (107-05-1)	5	C
Aluminum (CAS No. Not Applicable)	2,000	A
Ametryn (834-12-8)	50	C
4-Aminobiphenyl (92-67-1)	5	C
Aminocresols (95-84-1; 2835-95-2; 2835-99-6)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Aminomethylene phosphonic acid salts (CAS No. Not Applicable)	50*	B
Remark: * Applies to each aminomethylene phosphonic acid salt individually.		
Aminopyridines (462-08-8; 504-24-5; 504-29-0; 26445-05-6)	1*	B
Remark: * Applies to the sum of these substances.		
3-Aminotoluene (108-44-1)	5	C
4-Aminotoluene (106-49-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Ammonia and Ammonium (7664-41-7; CAS No. Not Applicable) Remark: * $\text{NH}_3 + \text{NH}_4^+$ as N. Case-by-case determination of need and quantity.	*	D
Aniline (62-53-3)	5	C
Anthracene (120-12-7)	50	B
Antimony (CAS No. Not Applicable)	6	A
Arsenic (CAS No. Not Applicable)	50	A
Aryltriazoles (CAS No. Not Applicable) Remark: * Applies to each aryltriazole individually.	50*	B
Asbestos (fibers > 10 um) (CAS No. Not Applicable)	14,000,000 fibers/L	A
Atrazine (1912-24-9)	7.5	A
Azinphosmethyl (86-50-0)	4.4	A
Azobenzene (103-33-3)	5	C
Barium (CAS No. Not Applicable)	2,000	A
Benefin (1861-40-1)	35	A
Benz(a)anthracene (56-55-3)	0.002	B
Benzene (71-43-2)	1	A
Benzidine (92-87-5)	5	C
Benzisothiazole (271-61-4)	50	B
Benzo(b)fluoranthene (205-99-2)	0.002	B
Benzo(k)fluoranthene (207-08-9)	0.002	B
Benzo(a)pyrene (50-32-8)	ND	A
Beryllium (CAS No. Not Applicable)	3	B
1,1'-Biphenyl (92-52-4)	5	C
Bis(2-chloroethoxy)methane (111-91-1)	5	C
Bis(2-chloroethyl)ether (111-44-4)	1.0	A
Bis(chloromethyl)ether (542-88-1)	5	C
Bis(2-chloro-1-methylethyl)ether (108-60-1)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Bis(2-ethylhexyl)phthalate (117-81-7)	5	A
Boric acid, Borates & Metaborates (CAS No. Not Applicable)	125*	B
Remark: * Applies as boron equivalents to the sum of these substances.		
Boron (CAS No. Not Applicable)	2,000	C
Bromacil (314-40-9)	4.4	A
Bromide (CAS No. Not Applicable)	2,000	B
Bromobenzene (108-86-1)	5	C
Bromochloromethane (74-97-5)	5	C
Bromodichloromethane (75-27-4)	50	B
Bromoform (75-25-2)	50	B
Bromomethane (74-83-9)	5	C
Butachlor (23184-66-9)	3.5	A
cis-2-Butenal (15798-64-8)	5	C
trans-2-Butenal (123-73-9)	5	C
cis-2-Butenenitrile (1190-76-7)	5	C
trans-2-Butenenitrile (627-26-9)	5	C
Butoxyethoxyethanol (112-34-5)	50	B
Butoxypropanol (5131-66-8)	50	B
Butylate (2008-41-5)	50	C
n-Butylbenzene (104-51-8)	5	C
sec-Butylbenzene (135-98-8)	5	C
tert-Butylbenzene (98-06-6)	5	C
Butyl benzyl phthalate (85-68-7)	50	B
Butyl isopropyl phthalate (CAS No. Not Applicable)	50	B
Cadmium (CAS No. Not Applicable)	10	A
Captan (133-06-2)	18	A
Carbaryl (63-25-2)	29	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Carbofuran (1563-66-2)	15	B
Carbon tetrachloride (56-23-5)	5	A
Carboxin (5234-68-4)	50	C
Chloramben (CAS No. Not Applicable)	50*	A
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
Chloranil (118-75-2)	5	C
Chlordane (57-74-9)	0.05	A
Chloride (CAS No. Not Applicable)	500,000	A
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans (CAS No. Not Applicable)	7×10^{-7} equivalents of 2,3,7,8-TCDD*	A
Remark: * Value is for the total of the chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans as equivalents of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) as specified by the ambient Class GA H(W) standard in Table 1 of this document.		
2-Chloroaniline (95-51-2)	5	C
3-Chloroaniline (108-42-9)	5	C
4-Chloroaniline (106-47-8)	5	C
Chlorobenzene (108-90-7)	5	C
4-Chlorobenzotrifluoride (98-56-6)	5	C
1-Chlorobutane (109-69-3)	5	C
Chloroethane (75-00-3)	5	C
Chloroform (67-66-3)	7	A
Chloromethyl methyl ether (107-30-2)	5	C
2-Chloronaphthalene (91-58-7)	10	B
2-Chloronitrobenzene (88-73-3)	5	C
3-Chloronitrobenzene (121-73-3)	5	C
4-Chloronitrobenzene (100-00-5)	5	C
Chloroprene (126-99-8)	5	C
Chlorothalonil (1897-45-6)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Chlorotoluene (95-49-8)	5	C
3-Chlorotoluene (108-41-8)	5	C
4-Chlorotoluene (106-43-4)	5	C
4-Chloro-o-toluidine (95-69-2)	5	C
5-Chloro-o-toluidine (95-79-4)	5	C
3-Chloro-1,1,1-trifluoropropane (460-35-5)	5	C
Chromium (CAS No. Not Applicable)	100	C
Chromium (hexavalent) (CAS No. Not Applicable)	100	A
Chrysene (218-01-9)	0.002	B
Copper (CAS No. Not Applicable)	1,000	A
Cyanide (CAS No. Not Applicable)	400	A
Cyanogen bromide (506-68-3)	5	C
Cyanogen chloride (506-77-4)	5	C
Dalapon (CAS No. Not Applicable)	50*	C
Remark: * Includes related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.		
p,p'-DDD (72-54-8)	0.3	A
p,p'-DDE (72-55-9)	0.2	A
p,p'-DDT (50-29-3)	0.2	A
Dechlorane Plus (13560-89-9)	5	C
Diazinon (333-41-5)	0.7	A
1,2-Dibromobenzene (583-53-9)	5	C
1,3-Dibromobenzene (108-36-1)	5	C
1,4-Dibromobenzene (106-37-6)	5	C
Dibromochloromethane (124-48-1)	50	B
1,2-Dibromo-3-chloropropane (96-12-8)	0.04	A
Dibromodichloromethane (594-18-3)	5	C
Dibromomethane (74-95-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,2-Dibromo-3-nitrilopropionamide (10222-01-2)	50	B
Di-n-butyl phthalate (84-74-2)	50	A
Dicamba (1918-00-9)	0.44	A
Dichlorobenzenes (95-50-1;541-73-1;106-47-6)	3*	A
Remark: * Applies to each dichlorobenzene individually.		
3,3'-Dichlorobenzidine (91-94-1)	5	C
3,4-Dichlorobenzotrifluoride (328-84-7)	5	C
cis-1,4-Dichloro-2-butene (1476-11-5)	5	C
trans-1,4-Dichloro-2-butene (110-57-6)	5	C
Dichlorodifluoromethane (75-71-8)	5	C
1,1-Dichloroethane (75-34-3)	5	C
1,2-Dichloroethane (107-06-2)	0.6	A
1,1-Dichloroethene (75-35-4)	5	C
cis-1,2-Dichloroethene (156-59-2)	5	C
trans-1,2-Dichloroethene (156-60-5)	5	C
Dichlorofluoromethane (75-43-4)	5	C
2,4-Dichlorophenol (120-83-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
2,4-Dichlorophenoxyacetic acid (94-75-7)	50	A
1,1-Dichloropropane (78-99-9)	5	C
1,2-Dichloropropane (78-87-5)	1	A
1,3-Dichloropropane (142-28-9)	5	C
2,2-Dichloropropane (594-20-7)	5	C
1,1-Dichloropropene (563-58-6)	5	C
1,3-Dichloropropene (sum of cis- and trans- isomers) (542-75-6)	0.4	A
2,3-Dichlorotoluene (32768-54-0)	5	C
2,4-Dichlorotoluene (95-73-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,5-Dichlorotoluene (19398-61-9)	5	C
2,6-Dichlorotoluene (118-69-4)	5	C
3,4-Dichlorotoluene (95-75-0)	5	C
3,5-Dichlorotoluene (25186-47-4)	5	C
Dieldrin (60-57-1)	0.004	A
Di(2-ethylhexyl)adipate (103-23-1)	20	A
Diethyl phthalate (84-66-2)	50	B
1,2-Difluoro-1,1,2,2-tetrachloroethane (76-12-0)	5	C
1,2-Diisopropylbenzene (577-55-9)	5	C
1,3-Diisopropylbenzene (99-62-7)	5	C
1,4-Diisopropylbenzene (100-18-5)	5	C
N,N-Dimethylaniline (121-69-7)	1	A
2,3-Dimethylaniline (87-59-2)	5	C
2,4-Dimethylaniline (95-68-1)	5	C
2,5-Dimethylaniline (95-78-3)	5	C
2,6-Dimethylaniline (87-62-7)	5	C
3,4-Dimethylaniline (95-64-7)	5	C
3,5-Dimethylaniline (108-69-0)	5	C
3,3'-Dimethylbenzidine (119-93-7)	5	C
4,4'-Dimethylbibenzyl (538-39-6)	5	C
4,4'-Dimethyldiphenylmethane (4957-14-6)	5	C
Dimethylformamide (68-12-2)	50	B
alpha, alpha-Dimethyl phenethylamine (122-09-8)	5	C
2,4-Dimethylphenol (105-67-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Dimethyl phthalate (131-11-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,4-Dinitrophenol (51-28-5) Remark: * See "Phenolic compounds (total phenols)."	*	
Dimethyl tetrachloroterephthalate (1861-32-1)	50	C
1,3-Dinitrobenzene (99-65-0)	5	C
2,3-Dinitrotoluene (602-01-7)	5	C
2,4-Dinitrotoluene (121-14-2)	5	C
2,5-Dinitrotoluene (619-15-8)	5	C
2,6-Dinitrotoluene (606-20-2)	5	C
3,4-Dinitrotoluene (610-39-9)	5	C
3,5-Dinitrotoluene (618-85-9)	5	C
Di-n-octyl phthalate (117-84-0)	50	B
Dinoseb (88-85-7) Remark: * See "Phenolic compounds (total phenols)."	*	
Diphenamid (957-51-7)	50	C
Diphenylamine (122-39-4)	5	C
1,1-Diphenylhydrazine (530-50-7)	ND	C
1,2-Diphenylhydrazine (122-66-7)	ND	A
Diquat (2764-72-9)	20	A
Dissolved solids, total (CAS No. Not Applicable) Remark: * 1,000 mg/L; applies only in the counties of Nassau and Suffolk.	*	A
Disulfoton (298-04-4) Remark: * See "Phorate and Disulfoton."	*	
Dodecylguanidine acetate and Dodecylguanidine hydrochloride (2439-10-3; 13590-97-1) Remark: * Applies to the sum of these substances.	50*	B
Dyphylline (479-18-5)	50	B
Endothall (145-73-3)	50	B

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Endrin (72-20-8)	ND	A
Endrin aldehyde (7421-93-4)	5	C
Endrin ketone (53494-70-5)	5	C
Ethylbenzene (100-41-4)	5	C
Ethylene chlorohydrin (107-07-3)	50	B
Ethylene dibromide (106-93-4)	6×10^{-4}	A
Ethylene glycol (107-21-1)	50	B
Ethylene oxide (75-21-8)	0.05	B
Ethylenethiourea (96-45-7)	ND	A
Ferbam (14484-64-1)	4.2	A
Fluometuron (2164-17-2)	50	C
Fluoranthene (206-44-0)	50	B
Fluorene (86-73-7)	50	B
Fluoride (CAS No. Not Applicable)	3,000	A
Foaming agents (CAS No. Not Applicable)	1,000*	A
Remark: * Determined as methylene blue active substances (MBAS) or by other tests as specified by the commissioner.		
Folpet (133-07-3)	50	A
Glyphosate (1071-83-6)	50	B
Gross alpha radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Gross beta radiation (CAS No. Not Applicable)	*	
Remark: * Established through Radiation Control Permits (Part 380).		
Guaifenesin (93-14-1)	50	B
Heptachlor (76-44-8)	0.04	A
Heptachlor epoxide (1024-57-3)	0.03	A
Hexachlorobenzene (118-74-1)	0.04	A
Hexachlorobutadiene (87-68-3)	0.5	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
alpha-Hexachlorocyclohexane (319-84-6)	0.01	A
beta-Hexachlorocyclohexane (319-85-7)	0.04	A
delta-Hexachlorocyclohexane (319-86-8)	0.04	A
epsilon-Hexachlorocyclohexane (6108-10-7)	0.04	A
gamma-Hexachlorocyclohexane (58-89-9)	0.05	A
Hexachlorocyclopentadiene (77-47-4)	5	C
Hexachloroethane (67-72-1)	5	C
Hexachlorophene (70-30-4)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Hexachloropropene (1888-71-7)	5	C
2-Hexanone (591-78-6)	50	B
Hexazinone (51235-04-2)	50	C
Hydrogen sulfide (7783-06-4)	*	
Remark: * See "Sulfides, total."		
Hydroquinone (123-31-9)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1-Hydroxyethylidene-1,1-diphosphonic acid (2809-21-4)	50	B
2-(2-Hydroxy-3,5-di-tert-pentylphenyl)-benzotriazole (25973-55-1)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Indeno (1,2,3-cd) pyrene (193-39-5)	0.002	B
Iron (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Iron and Manganese (CAS No. Not Applicable)	1,000*	A
Remark: * Applies to the sum of these substances.		
Isodrin (465-73-6)	5	C
Isophorone (78-59-1)	50	B
Isopropalin (33820-53-0)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Isopropylbenzene (98-82-8)	5	C
2-Isopropyltoluene (527-84-4)	5	C
3-Isopropyltoluene (535-77-3)	5	C
4-Isopropyltoluene (99-87-6)	5	C
Kepone (143-50-0)	ND	A
Lead (CAS No. Not Applicable)	50	A
Magnesium (CAS No. Not Applicable)	35,000	B
Malathion (121-75-5)	7.0	A
Mancozeb (8018-01-7)	1.8	A
Maneb (12427-38-2)	1.8	A
Manganese (CAS No. Not Applicable)	600*	A
Remark: * Also see "Iron and Manganese."		
Mercaptobenzothiazole (149-30-4)	50	B
Mercury (CAS No. Not Applicable)	1.4	A
Methacrylic acid (79-41-4)	50	B
Methacrylonitrile (126-98-7)	5	C
Methomyl (16752-77-5)	*	
Remark: * See "Aldicarb and Methomyl."		
Methoxychlor (72-43-5)	35	A
(1-Methoxyethyl) benzene (4013-34-7)	50	B
(2-Methoxyethyl) benzene (3558-60-9)	50	B
N-Methylaniline (100-61-8)	5	C
Methylbenz(a)anthracenes (CAS No. Not Applicable)	0.002*	B
Remark: * Applies to the sum of these substances.		
Methyl chloride (74-87-3)	5	C
2-Methyl-4-chlorophenoxyacetic acid (94-74-6)	0.44	A
4,4'-Methylene-bis-(2-chloroaniline) (101-14-4)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
4,4'-Methylene-bis-(N-methyl)aniline (1807-55-2)	5	C
4,4'-Methylene-bis-(N,N'-dimethyl) aniline (101-61-1)	5	C
Methylene bithiocyanate (6317-18-6)	50	B
Methylene chloride (dichloromethane) (75-09-2)	5	A
4-(1-Methylethoxy)-1-butanol (31600-69-8)	50	B
2-Methylethyl-1,3-dioxolane (126-39-6)	50	B
Methyl ethyl ketone (78-93-3)	50	B
Methyl iodide (74-88-4)	5	C
Methyl methacrylate (80-62-6)	50	A
Methyl parathion (298-00-0)	*	
Remark: * See "Parathion and Methyl parathion."		
alpha-Methylstyrene (98-83-9)	5	C
2-Methylstyrene (611-15-4)	5	C
3-Methylstyrene (100-80-1)	5	C
4-Methylstyrene (622-97-9)	5	C
Metribuzin (21087-64-9)	50	C
Mirex (2385-85-5)	0.03	A
Nabam (142-59-6)	1.8	A
Naphthalene (91-20-3)	10	B
Niacinamide (98-92-0)	500	B
Nickel (CAS No. Not Applicable)	200	A
Nitralin (4726-14-1)	35	A
Nitrate (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrate and Nitrite (expressed as N) (CAS No. Not Applicable)	20,000	A
Nitrilotriacetic acid (CAS No. Not Applicable)	3*	A
Remark: * Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less."		
Nitrite (expressed as N) (CAS No. Not Applicable)	2,000	A

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2-Nitroaniline (88-74-4)	5	C
3-Nitroaniline (99-09-2)	5	C
4-Nitroaniline (100-01-6)	5	C
Nitrobenzene (98-95-3)	0.4	A
Nitrogen, total (expressed as N) (CAS No. Not Applicable)	10,000*	A
Remark: * Applies only in the counties of Nassau and Suffolk.		
N-Nitrosodiphenylamine (86-30-6)	50	B
2-Nitrotoluene (88-72-2)	5	C
3-Nitrotoluene (99-08-1)	5	C
4-Nitrotoluene (99-99-0)	5	C
5-Nitro-o-toluidine (99-55-8)	5	C
Octachlorostyrene (29082-74-4)	0.2	A
Oil and Grease (CAS No. Not Applicable)	15,000*	A
Remark: * Applies to the sum of oil and grease.		
Organic substances, total (CAS No. Not Applicable)	100*	
Remark: * This value applies to the total of all organic substances listed in this Table with a groundwater effluent limitation less than 100 ug/L. Included in the total are all organic substances covered by the principal organic contaminant value and those in other "group" entries, whether or not the substances are individually listed in this Table.		
Oxamyl (23135-22-0)	50	C
Paraquat (4685-14-7)	3.0	A
Parathion (56-38-2)	*	
Remark: * See "Parathion and Methyl parathion."		
Parathion and Methyl parathion (56-38-2; 298-00-0)	1.5*	A
Remark: * Applies to the sum of these substances.		
Pendimethalin (40487-42-1)	5	C
Pentachlorobenzene (608-93-5)	5	C
Pentachloroethane (76-01-7)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Pentachloronitrobenzene (82-68-8)	ND	A
Pentachlorophenol (87-86-5)	*	
Remark: * See "Phenolic compounds (total phenols)."		
pH (CAS No. Not Applicable)	*	A
Remark: * pH shall not be lower than 6.5 or the pH of the natural groundwater, whichever is lower, nor shall be greater than 8.5 or the pH of the natural groundwater, whichever is greater.		
Phenanthrene (85-01-8)	50	B
Phenol (108-95-2)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenolic compounds (total phenols) (CAS No. Not Applicable)	2*	A
Remark: * Applies to the sum of these substances.		
Phenols, total chlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
Phenols, total unchlorinated (CAS No. Not Applicable)	*	
Remark: * See "Phenolic compounds (total phenols)."		
1,2-Phenylenediamine (95-54-5)	5	C
1,3-Phenylenediamine (108-45-2)	5	C
1,4-Phenylenediamine (106-50-3)	5	C
Phenyl ether (101-84-8)	10	B
Phenylhydrazine (100-63-0)	5	C
Phenylpropanolamine (14838-15-4)	50	B
3-Phenyl-1-propene (637-50-3)	5	C
cis-1-Phenyl-1-propene (766-90-5)	5	C
trans-1-Phenyl-1-propene (873-66-5)	5	C
Phorate (298-02-2)	*	
Remark: * See "Phorate and Disulfoton."		

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Phorate and Disulfoton (298-02-2; 298-04-4) Remark: * Applies to the sum of these substances.	ND*	A
Picloram (CAS No. Not Applicable) Remark: * Includes: related forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.	50*	C
Polybrominated biphenyls (CAS No. Not Applicable) Remark: * Applies to each congener individually.	5*	C
Polychlorinated biphenyls (CAS No. Not Applicable) Remark: * Applies to the sum of these substances.	0.09*	A
Principal organic contaminant (CAS No. Not Applicable) Remark: * Applies to each individual substance to which the principal organic contaminant (POC) class GA ambient groundwater standard applies (whether listed in this TOGS or not) <u>except</u> for those substances with a groundwater effluent limitation other than 5 ug/L listed in this Table. For the convenience of the reader, the groundwater effluent limitations of 5 ug/L for <u>some</u> (but not all) individual POCs are listed in this Table.	5*	C
Prometon (1610-18-0)	50	C
Propachlor (1918-16-7)	35	A
Propanil (709-98-8)	7.0	A
Propazine (139-40-2)	16	A
Propham (122-42-9)	50	C
n-Propylbenzene (103-65-1)	5	C
Pyrene (129-00-0)	50	B
Pyridine (110-86-1)	50	B
Radium 226 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 226 and Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	
Radium 228 (CAS No. Not Applicable) Remark: * Established through Radiation Control Permits, Part 380.	*	

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Selenium (CAS No. Not Applicable)	20	A
Silver (CAS No. Not Applicable)	100	A
Simazine (122-34-9)	0.5	A
Sodium (CAS No. Not Applicable)	*	D
Remark: * Case-by-case evaluation.		
Styrene (100-42-5)	930	A
Sulfate (CAS No. Not Applicable)	500,000	A
Sulfide (CAS No. Not Applicable)	1,000	A
Tebuthiuron (34014-18-1)	50	C
Terbacil (5902-51-2)	50	C
Terbufos (13071-79-9)	0.09	B
Tetrachlorobenzenes (634-66-2; 634-90-2; 95-94-3; 12408-10-5)	*	*
Remark: * Value of 5 ug/L, Category C applies to each tetrachlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1,2-Tetrachloroethane (630-20-6)	5	C
1,1,2,2-Tetrachloroethane (79-34-5)	5	C
Tetrachloroethene (127-18-4)	5	C
Tetrachloroterephthalic acid (2136-79-0)	50	C
alpha, alpha, alpha, 4-Tetrachlorotoluene (5216-25-1)	5	C
Tetrahydrofuran (109-99-9)	50	B
1,2,3,4-Tetramethylbenzene (488-23-3)	5	C
1,2,3,5-Tetramethylbenzene (527-53-7)	5	C
1,2,4,5-Tetramethylbenzene (95-93-2)	5	C
Thallium (CAS No. Not Applicable)	0.5	B
Theophylline (58-55-9)	40	B
Thiram (137-26-8)	1.8	A
Toluene (108-88-3)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Toluene-2,4-diamine (95-80-7)	5	C
Toluene-2,5-diamine (95-70-5)	5	C
Toluene-2,6-diamine (823-40-5)	5	C
o-Toluidine (95-53-4)	5	C
Tolyltriazole (29385-43-1)	50	B
Toxaphene (8001-35-2)	0.06	A
1,2,4-Tribromobenzene (615-54-3)	5	C
Tributyltin oxide (56-35-9)	50	B
2,4,6-Trichloroaniline (634-93-5)	5	C
Trichlorobenzenes (87-61-6; 120-82-1; 108-70-3; 12002-48-1)	*	*
Remark: * Value of 5 ug/L, Category C applies to each trichlorobenzene individually. Value of 10 ug/L, Category B applies to the sum of these substances.		
1,1,1-Trichloroethane (71-55-6)	5	C
1,1,2-Trichloroethane (79-00-5)	1	A
Trichloroethene (79-01-6)	5	A
Trichlorofluoromethane (75-69-4)	5	C
2,4,5-Trichlorophenoxyacetic acid (93-76-5)	35	A
2,4,5-Trichlorophenoxypropionic acid (93-72-1)	0.26	A
1,1,2-Trichloropropane (598-77-6)	5	C
1,2,3-Trichloropropane (96-18-4)	0.04	A
cis-1,2,3-Trichloropropene (13116-57-9)	5	C
trans-1,2,3-Trichloropropene (13116-58-0)	5	C
alpha,2,4-Trichlorotoluene (94-99-5)	5	C
alpha,2,6-Trichlorotoluene (2014-83-7)	5	C
alpha,3,4-Trichlorotoluene (102-47-6)	5	C
alpha,alpha,2-Trichlorotoluene (88-66-4)	5	C
alpha,alpha,4-Trichlorotoluene (13940-94-8)	5	C

Table 5 (Continued)

NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)

JUNE 1998

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
2,3,4-Trichlorotoluene (7359-72-0)	5	C
2,3,5-Trichlorotoluene (56961-86-5)	5	C
2,3,6-Trichlorotoluene (2077-46-5)	5	C
2,4,5-Trichlorotoluene (6639-30-1)	5	C
2,4,6-Trichlorotoluene (23749-65-7)	5	C
1,1,1-Trichloro-2,2,2-trifluoroethane (354-58-5)	5	C
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	5	C
Trifluralin (1582-09-8)	35	A
1,2,3-Trimethylbenzene (526-73-8)	5	C
1,2,4-Trimethylbenzene (95-63-6)	5	C
1,3,5-Trimethylbenzene (108-67-8)	5	C
2,3,6-Trimethylpyridine (1462-84-6)	50	B
2,4,6-Trimethylpyridine (108-75-8)	50	B
sym-Trinitrobenzene (99-35-4)	5	C
2,3,4-Trinitrotoluene (602-29-9)	5	C
2,3,6-Trinitrotoluene (18292-97-2)	5	C
2,4,5-Trinitrotoluene (610-25-3)	5	C
2,4,6-Trinitrotoluene (118-96-7)	5	C
3,4,5-Trinitrotoluene (603-15-6)	5	C
Triphenyl phosphate (115-86-6)	50	B
Uranyl ion (CAS No. Not Applicable)	10,000	C
Vinyl chloride (75-01-4)	2	A
1,2-Xylene (95-47-6)	5	C
1,3-Xylene (108-38-3)	5	C
1,4-Xylene (106-42-3)	5	C
Zinc (CAS No. Not Applicable)	5,000	A
Zineb (12122-67-7)	1.8	A
Ziram (137-30-4)	4.2	A

INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER

JUNE 1998

- Notes: 1. This index refers to the user to Table 1, 3 or 5 of this TOGS. Entries within each Table are listed alphabetically. As this index indicates, a few entries are listed in both Tables 1 and 3. Substances in Table 1 with an ambient groundwater value also have a groundwater effluent limitation and are thus also listed in Table 5. The user is cautioned that not all substances included in "group" entries are individually listed in this index, and should read the text of Parts I and II of this TOGS.
2. Where an entry includes multiple substances, underlining identifies the specific substances that corresponds to the CAS number listed. Entries having no CAS number are indicated by "NA" (not applicable).
3. CAS numbers that represent groups of substances, including pairs of cis- and trans- isomers, may not be included in this index. The user may need to determine individual substances and CAS numbers.
4. Where entries in this index are separated by a semicolon, the table listings are also so separated and apply to the entry before and after the semicolon, respectively.

CAS Number	Entry	Table
NA	Alkyl diphenyl oxide sulfonates	1,5
NA	Aluminum, ionic; Aluminum	1;5
NA	Aminomethylene phosphonic acid salts	1,5
NA	Ammonia and <u>Ammonium</u>	1,5
NA	Antimony	1,5
NA	Arsenic	1,5
NA	Aryltriazoles	1,5
NA	Asbestos	1,5
NA	Barium	1,5
NA	Beryllium	1,5
NA	Boric acid, Borates and Metaborates	1,5
NA	Boron	1,5
NA	Bromide	1,5
NA	Butyl isopropyl phthalate	1,5
NA	Cadmium	1,5
NA	Chloramben	1,5
NA	Chloride	1,5
NA	Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
NA	Chlorine, Total Residual	1
NA	Chromium	1,5
NA	Chromium (hexavalent)	1,5
NA	Cobalt	1
NA	Copper	1,5
NA	Cyanide	1,5
NA	Dalapon	1,5
NA	Dissolved solids, total	5
NA	Fluoride	1,5
NA	Foaming agents	1,5
NA	Gross alpha radiation	1,5
NA	Gross beta radiation	1,5
NA	Iron; <u>Iron</u> and Manganese	1,5;1,5
NA	Isothiazolones, total; Isothiazolones	1;3
NA	Lead	1,5
NA	Linear alkylbenzene sulfonates (LAS)	1,3
NA	Magnesium	1,5
NA	Manganese; Iron and <u>Manganese</u>	1,5;1,5
NA	Mercury	1,5
NA	Methylbenz(a)anthracenes	1,5
NA	Nickel	1,5
NA	Nitrate (expressed as N); <u>Nitrate</u> and Nitrite (expressed as N)	1,5;1,5
NA	Nitrilotriacetic acid	1,5
NA	Nitrite (expressed as N); Nitrate and <u>Nitrite</u> (expressed as N)	1,5;1,5
NA	Nitrogen, total (expressed as N)	5
NA	Oil and Grease	5
NA	Organic substances, total	5
NA	pH	5
NA	Phenolic compounds (total phenols)	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
NA	Phenols, total chlorinated	1,5
NA	Phenols, total unchlorinated	1,5
NA	Phosphorus	1
NA	Picloram	1,5
NA	Polybrominated biphenyls	1,5
NA	Polychlorinated biphenyls	1,5
NA	Principal organic contaminant	1,5
NA	Quaternary ammonium compounds	1,3
NA	Radium 226; <u>Radium 226</u> and Radium 228	1,5;1,5
NA	Radium 228; Radium 226 and <u>Radium 228</u>	1,5;1,5
NA	Selenium	1,5
NA	Silver	1,5
NA	Sodium	1,5
NA	Strontium 90	1
NA	Sulfate	1,5
NA	Sulfides, total; Sulfide	1;5
NA	Sulfite	1
NA	Thallium	1,5
NA	Tritium	1
NA	Uranyl ion	1,5
NA	Vanadium	1
NA	Zinc	1,5
50-00-0	Formaldehyde	3
50-29-3	p,p'-DDT	1,5
50-32-8	Benzo(a)pyrene	1,5
50-55-5	Reserpine	3
51-28-5	2,4-Dinitrophenol	1,5
52-51-7	Bronopol	3
52-85-7	Famphur	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
53-96-3	2-Acetylaminofluorene	3
55-18-5	N-Nitrosodiethylamine	3
55-70-3	Dibenz(a,h)anthracene	3
56-23-5	Carbon tetrachloride	1,5
56-35-9	Tributyltin oxide	1,5
56-38-2	Parathion; <u>Parathion</u> & Methyl parathion	1;1,5
56-49-5	3-Methylcholanthrene	3
56-55-3	Benz(a)anthracene	1,5
56-57-5	4-Nitroquinoline-1-oxide	3
57-14-7	1,1-Dimethylhydrazine	3
57-24-9	Strychnine	3
57-74-9	Chlordane	1,5
57-97-6	7, 12-Dimethylbenz(a)anthracene	3
58-55-6	Propylene glycol	3
58-55-9	Theophylline	1,5
58-89-9	gamma-Hexachlorocyclohexane	1,5
59-87-0	Nitrofurazone	3
59-89-2	N-Nitrosomorpholine	3
60-11-7	4-(Dimethylamino)azobenzene	3
60-29-7	Ethyl ether	3
60-51-5	Dimethoate	3
60-57-1	Aldrin and <u>Dieldrin</u> ; Dieldrin	1;1,5
62-44-2	Phenacetin	3
62-50-0	Ethyl methane sulfonate	3
62-53-3	Aniline	1,5
62-56-6	Thiourea	3
62-75-9	N-Nitrosodimethylamine	3
63-25-2	Carbaryl	1,5
64-18-6	Formic acid	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
65-85-0	Benzoic acid	3
66-27-3	Methylmethanesulfonate	3
67-20-9	Nitrofurantoin	3
67-45-8	Furazolidone	3
67-56-1	Methanol	3
67-63-0	Isopropyl alcohol	3
67-64-1	Acetone	1,5
67-66-3	Chloroform	1,5
67-72-1	Hexachloroethane	1,5
68-12-2	Dimethylformamide	1,5
70-30-4	Hexachlorophene	1,5
70-55-3	4-Methyl benzene sulfonamide	3
71-23-8	1-Propanol	3
71-36-3	1-Butanol	3
71-43-2	Benzene	1,5
71-55-6	1,1,1-Trichloroethane	1,5
72-20-8	Endrin	1,5
72-43-5	Methoxychlor	1,5
72-54-8	p,p'-DDD	1,5
72-55-9	p,p'-DDE	1,5
74-11-3	4-Chlorobenzoic acid	3
74-83-9	Bromomethane	1,5
74-87-3	Methyl chloride	1,5
74-88-4	Methyl iodide	1,5
74-89-5	Methylamine	3
74-95-3	Dibromomethane	1,5
74-97-5	Bromochloromethane	1,5
75-00-3	Chloroethane	1,5
75-01-4	Vinyl chloride	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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(Continued)**

CAS Number	Entry	Table
75-05-8	Acetonitrile	3
75-09-2	Methylene chloride	1,5
75-15-0	Carbon disulfide	3
75-21-8	Ethylene oxide	1,5
75-25-2	Bromoform	1,5
75-27-4	Bromodichloromethane	1,5
75-31-0	Isopropylamine	3
75-34-3	1,1-Dichloroethane	1,5
75-35-4	1,1-Dichloroethene	1,5
75-43-4	Dichlorofluoromethane	1,5
75-56-9	Propylene oxide	3
75-60-5	Cacodylic acid	3
75-65-0	tert-Butyl alcohol	3
75-69-4	Trichlorofluoromethane	1,5
75-71-8	Dichlorodifluoromethane	1,5
75-86-5	Acetone cyanohydrin	3
75-87-6	Chloral	3
76-01-7	Pentachloroethane	1,5
76-03-9	Trichloroacetic acid	3
76-12-0	1,2-Difluoro-1,1,2,2-tetrachloroethane	1,5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1,5
76-44-8	Heptachlor	1,5
77-47-4	Hexachlorocyclopentadiene	1,5
77-58-7	Dibutyltin dilaurate	3
77-73-6	Dicyclopentadiene	3
78-00-2	Tetraethyl lead	3
78-59-1	Isophorone	1,5
78-83-1	Isobutyl alcohol	3
78-87-5	1,2-Dichloropropane	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
78-93-3	Methyl ethyl ketone	1,5
78-99-9	1,1-Dichloropropane	1,5
79-00-5	1,1,2-Trichloroethane	1,5
79-01-6	Trichloroethene	1,5
79-06-1	Acrylamide	1,5
79-10-7	Acrylic acid	1,5
79-11-8	Chloroacetic acid	3
79-20-9	Methyl acetate	3
79-34-5	1,1,2,2-Tetrachloroethane	1,5
79-39-0	Methacrylamide	3
79-41-4	Methacrylic acid	1,5
79-43-6	Dichloroacetic acid	3
79-45-8	Dimethyldithiocarbamate	3
79-46-9	2-Nitropropane	3
80-15-9	Isopropylbenzene hydroperoxide	3
80-62-6	Methyl methacrylate	1,5
81-81-2	Warfarin	3
82-68-8	Pentachloronitrobenzene	1,5
83-32-9	Acenaphthene	1,5
83-79-4	Rotenone	3
84-66-2	Diethyl phthalate	1,5
84-74-2	Di-n-butylphthalate	1,5
85-00-7	See 2764-72-9	
85-01-8	Phenanthrene	1,5
85-44-9	1,3-Isobenzofurandione	3
85-68-7	Butyl benzyl phthalate	1,5
86-30-6	N-Nitrosodiphenylamine	1,5
86-50-0	Azinphosmethyl	1,5
86-73-7	Fluorene	1,5

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CAS Number	Entry	Table
86-74-8	Carbazole	3
87-41-2	1(3H)-Isobenzofuranone	3
87-59-2	2,3-Dimethylaniline	1,5
87-61-6	Trichlorobenzenes (1,2,3-)	1,5
87-62-7	2,6-Dimethylaniline	1,5
87-68-3	Hexachlorobutadiene	1,5
87-86-5	Pentachlorophenol	1,5
88-19-7	2-Methyl benzene sulfonamide	3
88-66-4	alpha, alpha,2-Trichlorotoluene	1,5
88-72-2	2-Nitrotoluene	1,5
88-73-3	2-Chloronitrobenzene	1,5
88-74-4	2-Nitroaniline	1,5
88-85-7	Dinoseb	1,5
91-20-3	Naphthalene	1,5
91-22-5	Quinoline	3
91-57-6	2-Methylnaphthalene	1,3
91-58-7	2-Chloronaphthalene	1,5
91-59-8	2-Napthylamine	3
91-80-5	Methapyrilene	3
91-94-1	3,3'-Dichlorobenzidine	1,5
92-52-4	1,1'-Biphenyl	1,5
92-67-1	4-Aminobiphenyl	1,5
92-87-5	Benzidine	1,5
93-14-1	Guaifenesin	1,5
93-65-2	2-(4-Chloro-2-methylphenoxy)propionic acid	3
93-72-1	2,4,5-Trichlorophenoxypropionic acid	1,5
93-76-5	2,4,5-Trichlorophenoxyacetic acid	1,5
94-59-7	Safrole	3
94-74-6	2-Methyl-4-chlorophenoxyacetic acid	1,5

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
94-75-7	2,4-Dichlorophenoxyacetic acid	1,5
94-81-5	4-(4-Chloro-2-methylphenoxy)butyric acid	3
94-82-6	2,4-DB	3
94-99-5	alpha,2,4-Trichlorotoluene	1,5
95-47-6	1,2-Xylene	1,5
95-49-8	2-Chlorotoluene	1,5
95-50-1	Dichlorobenzenes (1,2-)	1,5
95-51-2	2-Chloroaniline	1,5
95-53-4	o-Toluidine	1,5
95-54-5	1,2-Phenylenediamine	1,5
95-63-6	1,2,4-Trimethylbenzene	1,5
95-64-7	3,4-Dimethylaniline	1,5
95-68-1	2,4-Dimethylaniline	1,5
95-69-2	4-Chloro-o-toluidine	1,5
95-70-5	Toluene-2,5-diamine	1,5
95-73-8	2,4-Dichlorotoluene	1,5
95-75-0	3,4-Dichlorotoluene	1,5
95-78-3	2,5-Dimethylaniline	1,5
95-79-4	5-Chloro-o-toluidine	1,5
95-80-7	Toluene-2,4-diamine	1,5
95-84-1	Aminocresols (2-Amino-para-cresol)	1,5
95-93-2	1,2,4,5-Tetramethylbenzene	1,5
95-94-3	Tetrachlorobenzenes (1,2,4,5-)	1,5
96-12-8	1,2-Dibromo-3-chloropropane	1,5
96-18-4	1,2,3-Trichloropropane	1,5
96-19-5	See 13116-57-9 and 13116-58-0	
96-33-3	Methylacrylate	3
96-37-7	Methylcyclopentane	3
96-45-7	Ethylenethiourea	1,5

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CAS Number	Entry	Table
97-63-2	Ethyl methacrylate	3
98-01-1	Furfural	3
98-06-6	tert-Butylbenzene	1,5
98-07-7	alpha, alpha, alpha-Trichlorotoluene	3
98-56-6	4-Chlorobenzotrifluoride	1,5
98-82-8	Isopropylbenzene	1,5
98-83-9	alpha-Methylstyrene	1,5
98-86-2	Acetophenone	3
98-87-3	alpha, alpha-Dichlorotoluene	3
98-92-0	Niacinamide	1,5
98-95-3	Nitrobenzene	1,5
99-04-7	3-Methylbenzoic acid	3
99-08-1	3-Nitrotoluene	1,5
99-09-2	3-Nitroaniline	1,5
99-35-4	sym-Trinitrobenzene	1,5
99-55-8	5-Nitro-o-toluidine	1,5
99-59-2	2-Methoxy-5-nitroaniline	3
99-62-7	1,3-Diisopropylbenzene	1,5
99-65-0	1,3-Dinitrobenzene	1,5
99-87-6	4-Isopropyltoluene	1,5
99-99-0	4-Nitrotoluene	1,5
100-00-5	4-Chloronitrobenzene	1,5
100-01-6	4-Nitroaniline	1,5
100-18-5	1,4-Diisopropylbenzene	1,5
100-37-8	2-(Diethylamino)ethanol	3
100-41-4	Ethylbenzene	1,5
100-42-5	Styrene	1,5
100-44-7	Benzyl chloride	3
100-51-6	Benzyl alcohol	3

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CAS Number	Entry	Table
100-52-7	Benzaldehyde	3
100-61-8	N-Methylaniline	1,5
100-63-0	Phenylhydrazine	1,5
100-64-1	Cyclohexanone oxime	3
100-66-3	Anisole	3
100-75-4	N-Nitrosopiperidine	3
100-80-1	3-Methylstyrene	1,5
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)	1,5
101-55-3	4-Bromophenylphenylether	3
101-61-1	4,4'-Methylene-bis-(N,N'-dimethyl)aniline	1,5
101-84-8	Phenyl ether	1,5
102-47-6	alpha, 3,4-Trichlorotoluene	1,5
103-23-1	Di(2-ethylhexyl)adipate	1,5
103-33-3	Azobenzene	1,5
103-65-1	n-Propylbenzene	1,5
103-82-2	Benzeneacetic acid	3
104-51-8	n-Butylbenzene	1,5
104-87-0	4-Methylbenzaldehyde	3
105-11-3	1,4-Quinone dioxide	3
105-60-1	Caprolactam	3
105-67-9	2,4-Dimethylphenol	1,5
106-37-6	1,4-Dibromobenzene	1,5
106-42-3	1,4-Xylene	1,5
106-43-4	4-Chlorotoluene	1,5
106-46-7	Dichlorobenzenes (1,4-)	1,5
106-47-8	4-Chloroaniline	1,5
106-49-0	4-Aminotoluene	1,5
106-50-3	1,4-Phenylenediamine	1,5
106-89-8	Epichlorohydrin	3

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CAS Number	Entry	Table
106-93-4	Ethylene dibromide	1,5
107-02-8	Acrolein	1,5
107-05-1	Allyl chloride	1,5
107-06-2	1,2-Dichloroethane	1,5
107-07-3	Ethylene chlorohydrin	1,5
107-12-0	Propionitrile	3
107-13-1	Acrylonitrile	1,5
107-18-6	Allyl alcohol	3
107-21-1	Ethylene glycol	1,5
107-30-2	Chloromethyl methyl ether	1,5
108-05-4	Vinyl acetate	3
108-10-1	4-Methyl-2-pentanone	3
108-18-9	Diisopropylamine	3
108-20-3	Diisopropyl ether	3
108-31-6	Maleic anhydride	3
108-36-1	1,3-Dibromobenzene	1,5
108-38-3	1,3-Xylene	1,5
108-41-8	3-Chlorotoluene	1,5
108-42-9	3-Chloroaniline	1,5
108-44-1	3-Aminotoluene	1,5
108-45-2	1,3-Phenylenediamine	1,5
108-60-1	Bis(2-chloro-1-methylethyl)ether	1,5
108-67-8	1,3,5-Trimethylbenzene	1,5
108-69-0	3,5-Dimethylaniline	1,5
108-70-3	Trichlorobenzenes (1,3,5-)	1,5
108-75-8	2,4,6-Trimethylpyridine	1,5
108-86-1	Bromobenzene	1,5
108-88-3	Toluene	1,5
108-90-7	Chlorobenzene	1,5

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CAS Number	Entry	Table
108-91-8	Cyclohexylamine	3
108-93-0	Cyclohexanol	3
108-94-1	Cyclohexanone	3
108-95-2	Phenol	1,5
109-06-8	alpha-Picoline	3
109-69-3	1-Chlorobutane	1,5
109-77-3	Malononitrile	3
109-78-4	Ethylene cyanohydrin	3
109-86-4	2-Methoxyethanol	3
109-89-7	Diethylamine	3
109-99-9	Tetrahydrofuran	1,5
110-00-9	Furan	3
110-49-6	2-Methoxyethanol acetate	3
110-54-3	n-Hexane	3
110-57-6	trans-1,4-Dichloro-2-butene	1,5
110-75-8	2-Chloroethyl vinyl ether	3
110-80-5	2-Ethoxyethanol	3
110-82-7	Cyclohexane	3
110-83-8	Cyclohexene	3
110-86-1	Pyridine	1,5
111-15-9	2-Ethoxyethanol acetate	3
111-44-4	Bis(2-chloroethyl)ether	1,5
111-46-6	Diethylene glycol	3
111-70-6	1-Heptanol	3
111-90-0	Diethylene glycol monoethyl ether	3
111-91-1	Bis(2-chloroethoxy)methane	1,5
112-31-2	Decanal	3
112-34-5	Butoxyethoxyethanol	1,5
115-07-1	1-Propene	3

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CAS Number	Entry	Table
115-29-7	Endosulfan	1,3
115-86-6	Triphenyl phosphate	1,5
116-06-3	Aldicarb; <u>Aldicarb</u> and Methomyl	1,5
117-80-6	2,3-Dichloro-1,4-napthoquinone	3
117-81-7	Bis(2-ethylhexyl)phthalate	1,5
117-84-0	Di-n-octyl phthalate	1,5
118-69-4	2,6-Dichlorotoluene	1,5
118-74-1	Hexachlorobenzene	1,5
118-75-2	Chloranil	1,5
118-90-1	2-Methylbenzoic acid	3
118-96-7	2,4,6-Trinitrotoluene	1,5
119-90-4	3,3'-Dimethoxybenzidine	3
119-93-7	3,3'-Dimethylbenzidine	1,5
120-12-7	Anthracene	1,5
120-58-1	Isosafrole	3
120-61-6	Dimethylterephthalate	3
120-82-1	Trichlorobenzenes (1,2,4-)	1,5
120-83-2	2,4-Dichlorophenol	1,5
120-92-3	Cyclopentanone	3
121-14-2	2,4-Dinitrotoluene	1,5
121-44-8	Triethylamine	3
121-69-7	N,N-Dimethylaniline	1,5
121-73-3	3-Chloronitrobenzene	1,5
121-75-5	Malathion	1,5
121-82-4	Cyclotrimethylenetrinitramine	3
122-09-8	alpha, alpha-Dimethyl phenethylamine	1,5
122-34-9	Simazine	1,5
122-39-4	Diphenylamine	1,5
122-42-9	Propham	1,5

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CAS Number	Entry	Table
122-66-7	Diphenylhydrazines (1,2-); 1,2-Diphenylhydrazine	1,5
123-31-9	Hydroquinone	1,5
123-33-1	Maleic hydrazide	3
123-73-9	trans-2-Butenal	1,5
123-91-1	1,4-Dioxane	3
124-09-4	Hexamethylene diamine	3
124-19-6	Nonanal	3
124-40-3	Dimethylamine	3
124-48-1	Dibromochloromethane	1,5
126-39-6	2-Methylethyl-1,3-dioxolane	1,5
126-68-1	o,o,o-Triethylphosphorothioate	3
126-75-0	Demeton (-S)	1
126-98-7	Methacrylonitrile	1,5
126-99-8	Chloroprene	1,5
127-18-4	Tetrachloroethene	1,5
129-00-0	Pyrene	1,5
130-15-4	1,4-Naphthoquinone	3
131-11-3	Dimethyl phthalate	1,5
132-64-9	Dibenzofuran	3
133-06-2	Captan	1,5
133-07-3	Folpet	1,5
134-32-7	1-Naphthylamine	3
135-98-8	sec-Butylbenzene	1,5
136-25-4	Pentamate	3
137-26-8	Thiram	1,5
137-30-4	Ziram	1,5
138-86-3	1-Methyl-4-(1-methylethenyl)cyclohexene	3
139-40-2	Propazine	1,5
140-57-8	Aramite	3

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CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
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CAS Number	Entry	Table
140-88-5	Ethyl acrylate	3
141-05-9	Diethyl maleate	3
141-78-6	Ethyl acetate	3
142-28-9	1,3-Dichloropropane	1,5
142-59-6	Nabam	1,5
142-82-5	n-Heptane	3
143-07-7	Dodecanoic acid	3
143-08-8	1-Nonanol	3
143-50-0	Kepone	1,5
145-73-3	Endothall	1,5
148-18-5	Sodium diethyldithiocarbamate	3
149-30-4	Mercaptobenzothiazole	1,5
152-16-9	Octamethylpyrophosphoramine	3
156-59-2	cis-1,2-Dichloroethene	1,5
156-60-5	trans-1,2-Dichloroethene	1,5
191-24-2	Benzo(g,h,i)perylene	3
192-97-2	Benzo(e)pyrene	3
193-39-5	Indeno (1,2,3-cd)pyrene	1,5
205-99-2	Benzo(b)fluoranthene	1,5
206-44-0	Fluoranthene	1,5
207-08-9	Benzo(k)fluoranthene	1,5
208-96-8	Acenaphthylene	3
218-01-9	Chrysene	1,5
271-61-4	Benzisothiazole	1,5
297-97-2	o,o-Diethyl-o-2-pyrazinyl phosphorothioate	3
298-00-0	Parathion & <u>Methyl parathion</u>	1,5
298-02-2	<u>Phorate</u> & Disulfoton	1,5
298-03-3	Demeton (<u>-o</u>)	1
298-04-4	Phorate & <u>Disulfoton</u>	1,5

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CAS Number	Entry	Table
299-84-3	Ronnel	3
302-01-2	Hydrazine	1,3
309-00-2	Aldrin; Aldrin & Dieldrin	1,5;1
314-40-9	Bromacil	1,5
319-84-6	alpha-Hexachlorocyclohexane	1,5
319-85-7	beta-Hexachlorocyclohexane	1,5
319-86-8	delta-Hexachlorocyclohexane	1,5
328-84-7	3,4-Dichlorobenzotrifluoride	1,5
330-55-2	Linuron	3
333-41-5	Diazinon	1,5
354-58-5	1,1,1-Trichloro-2,2,2-trifluoroethane	1,5
460-35-5	3-Chloro-1,1,1-trifluoropropane	1,5
462-08-8	Aminopyridines (3-)	1,5
465-73-6	Isodrin	1,5
479-18-5	Dyphylline	1,5
488-23-3	1,2,3,4-Tetramethylbenzene	1,5
501-52-0	Benzenepropanoic acid	3
504-24-5	Aminopyridines (4-)	1,5
504-29-0	Aminopyridines (2-)	1,5
506-68-3	Cyanogen bromide	1,5
506-77-4	Cyanogen chloride	1,5
510-15-6	Chlorobenzilate	3
512-56-1	Trimethyl phosphate	3
515-30-0	alpha-Hydroxy-alpha-methylbenzeneacetic acid	3
526-73-8	1,2,3-Trimethylbenzene	1,5
527-53-7	1,2,3,5-Tetramethylbenzene	1,5
527-84-4	2-Isopropyltoluene	1,5
529-20-4	2-Methylbenzaldehyde	3

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CAS Number	Entry	Table
530-50-7	Diphenylhydrazines (1,1-); 1,1-Diphenylhydrazine	1,5
531-82-8	Furium	3
535-77-3	3-Isopropyltoluene	1,5
538-39-6	4,4'-Dimethylbibenzyl	1,5
540-73-8	1,2-Dimethylhydrazine	3
541-73-1	Dichlorobenzenes (1,3-)	1,5
542-75-6	1,3-Dichloropropene (sum of cis- and trans-)	1,5
542-88-1	Bis(chloromethyl)ether	1,5
543-49-7	2-Heptanol	3
563-12-2	Ethion	3
563-58-6	1,1-Dichloropropene	1,5
577-55-9	1,2-Diisopropylbenzene	1,5
583-53-9	1,2-Dibromobenzene	1,5
584-84-9	Toluene diisocyanate	3
589-18-4	4-Methylbenzenemethanol	3
589-38-8	3-Hexanone	3
589-55-9	4-Heptanol	3
589-82-2	3-Heptanol	3
589-93-5	2,5-Lutidine	3
591-78-6	2-Hexanone	1,5
594-18-3	Dibromodichloromethane	1,5
594-20-7	2,2-Dichloropropane	1,5
597-64-8	Tetraethyl tin	3
598-77-6	1,1,2-Trichloropropane	1,5
602-01-7	2,3-Dinitrotoluene	1,5
602-29-9	2,3,4-Trinitrotoluene	1,5
603-15-6	3,4,5-Trinitrotoluene	1,5
606-20-2	2,6-Dinitrotoluene	1,5
608-73-1	See 58-89-9; 319-84-6; 319-85-7; 319-86-8; and 6108-10-7	

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608-93-5	Pentachlorobenzene	1,5
610-25-3	2,4,5-Trinitrotoluene	1,5
610-39-9	3,4-Dinitrotoluene	1,5
611-15-4	2-Methylstyrene	1,5
613-12-7	2-Methylanthracene	3
615-54-3	1,2,4-Tribromobenzene	1,5
617-84-4	Diethyl formamide	3
617-94-7	Dimethylphenylcarbinol	3
618-85-9	3,5-Dinitrotoluene	1,5
619-15-8	2,5-Dinitrotoluene	1,5
620-23-5	3-Methylbenzaldehyde	3
621-64-7	N-Nitrosodipropylamine	3
622-97-9	4-Methylstyrene	1,5
625-86-5	2,5-Dimethylfuran	3
627-26-9	trans-2-Butenenitrile	1,5
630-20-6	1,1,1,2-Tetrachloroethane	1,5
634-66-2	Tetrachlorobenzenes (1,2,3,4-)	1,5
634-90-2	Tetrachlorobenzenes (1,2,3,5-)	1,5
634-93-5	2,4,6-Trichloroaniline	1,5
637-50-3	3-Phenyl-1-propene	1,5
643-79-8	1,2-Benzenedicarboxaldehyde	3
683-18-1	Dibutyltin chloride	3
684-93-5	N-Nitroso-N-methyl urea	3
709-98-8	Propanil	1,5
759-96-4	Ethyl di-n-propylthiocarbamate (EPTC)	3
764-41-0	See 1476-11-5 and 110-57-6	
765-34-4	Glycidaldehyde	3
766-90-5	cis-1-Phenyl-1-propene	1,5
767-58-8	2,3-Dihydro-1-methyl-1H-indene	3

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823-40-5	Toluene-2,6-diamine	1,5
834-12-8	Ametryn	1,5
873-66-5	trans-1-Phenyl-1-propene	1,5
873-94-9	3,3,5-Trimethylcyclohexanone	3
923-02-4	Methylolmethacrylamide	3
924-16-3	N-Nitrosodi-N-butylamine	3
930-55-2	N-Nitrosopyrrolidine	3
957-51-7	Diphenamid	1,5
959-98-8	Endosulfan I	3
1024-57-3	Heptachlor epoxide	1,5
1031-07-8	Endosulfan sulfate	3
1071-83-6	Glyphosate	1,5
1114-71-2	Pebulate	3
1122-60-7	Nitrocyclohexane	3
1163-19-5	Bis(pentabromophenyl)ether	3
1190-76-7	cis-2-Butenenitrile	1,5
1321-12-6	See 88-72-2; 99-08-1 and 99-99-0	
1330-20-7	See 95-47-6; 106-42-3 and 108-38-3	
1462-84-6	2,3,6-Trimethylpyridine	1,5
1476-11-5	cis-1,4-Dichloro-2-butene	1,5
1563-66-2	Carbofuran	1,5
1582-09-8	Trifluralin	1,5
1589-49-7	Propylene glycol monomethyl ether	3
1610-18-0	Prometon	1,5
1634-04-4	Methyl tert-butyl ether	3
1646-87-3	Aldicarb sulfoxide	1,5
1646-88-4	Aldicarb sulfone	1,5
1702-17-6	Clopyralid	3
1807-55-2	4,4'-Methylene-bis-(N-methyl)aniline	1,5

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(Continued)**

CAS Number	Entry	Table
1861-32-1	Dimethyl tetrachloroterephthalate	1,5
1861-40-1	Benefin	1,5
1863-63-4	Benzoic acid, ammonium salt	3
1875-92-9	Dimethylbenzylammonium chloride	3
1888-71-7	Hexachloropropene	1,5
1897-45-6	Chlorothalonil	1,5
1912-24-9	Atrazine	1,5
1918-00-9	Dicamba	1,5
1918-16-7	Propachlor	1,5
1929-77-7	Vernolate	3
2008-41-5	Butylate	1,5
2014-83-7	alpha, 2,6-Trichlorotoluene	1,5
2077-46-5	2,3,6-Trichlorotoluene	1,5
2104-96-3	Bromophos	3
2136-79-0	Tetrachloroterephthalic acid	1,5
2164-17-2	Fluometuron	1,5
2207-04-7	trans-1,4-Dimethyl cyclohexane	3
2212-67-1	Molinate	3
2303-16-4	Diallate	3
2303-17-5	Triallate	3
2385-85-5	Mirex	1,5
2425-06-1	Captafol	3
2439-10-3	<u>Dodecylguanidine acetate</u> and Dodecyguanidine hydrochloride	1,5
2641-56-7	Diethyltin dycaprylate	3
2764-72-9	Diquat	1,5
2809-21-4	1-Hydroxyethylidene-1,1-diphosphonic acid	1,5
2835-95-2	Aminocresols (<u>5-Amino-ortho-cresol</u>)	1,5
2835-99-6	Aminocresols (<u>4-Amino-meta-cresol</u>)	1,5
2921-88-2	Chlorpyrifos	3

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
3252-43-5	2,2-Dibromo-3-nitrilopropionamide & <u>Dibromoacetonitrile</u> ; Dibromoacetonitrile	1,3
3558-60-9	(2-Methoxyethyl)benzene	1,5
3689-24-5	Tetraethyl dithiopyrophosphate	3
4013-34-7	(1-Methoxyethyl)benzene	1,5
4170-30-3	See 123-73-9 and 15798-64-8	
4376-18-5	Methylphthalate	3
4685-14-7	Paraquat	1,5
4726-14-1	Nitralin	1,5
4786-20-3	See 1190-76-7 and 627-26-9	
4957-14-6	4,4'-Dimethyldiphenylmethane	1,5
5131-66-8	Butoxypropanol	1,5
5197-80-8	Dimethylethylbenzylammonium chloride	3
5216-25-1	alpha, alpha, alpha, 4-Tetrachlorotoluene	1,5
5234-68-4	Carboxin	1,5
5902-51-2	Terbacil	1,5
6108-10-7	epsilon-Hexachlorocyclohexane	1,5
6317-18-6	Methylene bithiocyanate	1,5
6639-30-1	2,4,5-Trichlorotoluene	1,5
7005-72-3	4-Chlorophenyl phenyl ether	3
7359-72-0	2,3,4-Trichlorotoluene	1,5
7421-93-4	Endrin aldehyde	1,5
7486-38-6	Sodium adipate, disodium salt	3
7664-41-7	<u>Ammonia</u> and Ammonium	1,5
7783-06-4	Hydrogen sulfide	1,5
8001-35-2	Toxaphene	1,5
8018-01-7	Mancozeb	1,5
8065-48-3	Demeton	1,3
9003-27-4	Polybutene(1-propene, 2-methyl homopolymer)	3
10061-01-5	see 542-75-6	

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
10061-02-6	see 542-75-6	
10222-01-2	<u>2,2-Dibromo-3-nitrilopropionamide</u> & Dibromoacetonitrile	1,5
10595-95-6	N-Nitrosomethylethylamine	3
12002-48-1	Trichlorobenzenes	1,5
12122-67-7	Zineb	1,5
12408-10-5	Tetrachlorobenzenes	1,5
12427-38-2	Maneb	1,5
13071-79-9	Terbufos	1,5
13116-57-9	cis-1,2,3-Trichloropropene	1,5
13116-58-0	trans-1,2,3-Trichloropropene	1,5
13560-89-9	Dechlorane Plus	1,5
13590-97-1	Dodecylguanidine acetate and <u>Dodecylguanidine hydrochloride</u>	1,5
13940-94-8	alpha, alpha, 4-Trichlorotoluene	1,5
14484-64-1	Ferbam	1,5
14838-15-4	Phenylpropanolamine	1,5
15798-64-8	cis-2-Butenal	1,5
15972-60-8	Alachlor	1,5
16655-82-6	3-Hydroxycarbofuran	3
16752-77-5	Aldicarb & <u>Methomyl</u>	1,5
17059-48-2	2,3-Dihydro-1,6-dimethyl-1H-indene	3
18292-97-2	2,3,6-Trinitrotoluene	1,5
19089-47-5	Propylene glycol monoethyl ether	3
19398-61-9	2,5-Dichlorotoluene	1,5
21087-64-9	Metribuzin	1,5
21564-17-0	2-(Thiocyanomethylthio)benzothiazole	3
21725-46-2	Cyanazine	3
23135-22-0	Oxamyl	1,5
23184-66-9	Butachlor	1,5
23749-65-7	2,4,6-Trichlorotoluene	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
23950-58-5	Pronamide	3
25056-70-6	Hexanate	3
25136-55-4	Dimethyldioxane	3
25154-54-5*	See 99-65-0	
25167-93-5	See 88-73-3; 100-00-5 and 121-73-3	
25168-05-2	See 95-49-8; 106-43-4 and 108-41-8	
25186-47-4	3,5-Dichlorotoluene	1,5
25265-76-3	See 95-54-5; 106-50-3 and 108-45-2	
25321-09-9	See 99-62-7; 100-18-5 and 577-55-9	
25321-14-6	See 121-14-2; 602-01-7; 606-20-2; 610-39-9; 618-85-9 and 619-15-8	
25321-22-6	See 95-50-1; 106-46-7 and 541-73-1	
25551-13-7	See 95-63-6; 108-67-8 and 526-73-8	
25973-55-1	2-(2-Hydroxy-3,5-di-tert-pentylphenyl)benzotriazole	1,5
26399-36-0	Profluralin	3
26445-05-6	Aminopyridines	1,5
26523-64-8	See 76-13-1 and 354-58-5	
27134-26-5	See 95-51-2; 106-47-8 and 108-42-9	
29082-74-4	Octachlorostyrene	1,5
29091-21-2	Prodiamine	3
29385-43-1	Tolyltriazole	1,5
29611-84-5*	See 108-75-8 and 1462-84-6	
29761-21-5	Isodecyl diphenyl phosphate	1,3
29797-40-8	See 95-73-8; 95-75-0; 118-69-4; 19398-61-9; 25186-47-4 and 32768-54-0	
30560-19-1	Acephate	3
31600-69-8	4-(1-Methylethoxy)-1-butanol	1,5
32768-54-0	2,3-Dichlorotoluene	1,5
33213-65-9	Endosulfan II	3
33820-53-0	Isopropalin	1,5
34014-18-1	Tebuthiuron	1,5

**INDEX OF TOGS 1.1.1 TABLE 1, 3 AND 5 ENTRIES BY
CHEMICAL ABSTRACTS SERVICE REGISTRY (CAS) NUMBER
JUNE 1998
(Continued)**

CAS Number	Entry	Table
35448-14-7	Oxalic acid, benzyl ester	3
37299-86-8	Rhodamine WT	3
39196-18-4	Thiofanox	3
40487-42-1	Pendimethalin	1,5
51218-45-2	Metolachlor	3
51235-04-2	Hexazinone	1,5
53494-70-5	Endrin ketone	1,5
56961-86-5	2,3,5-Trichlorotoluene	1,5
68391-01-5	Alkyl dimethyl benzyl ammonium chloride	1,5
95266-40-3	Cimectacarb	3
<p>* This non-individual CAS number also refers to one or more individual substances that are not specifically listed in the table. These individual substances, however, may be encompassed by a group entry in Table 1 (for example, Principal Organic Comtaminant or Phenolic Compounds). Refer to the text of Part I of this document for an explanation of group entries.</p>		

s/s (6/17/98)
 N.G. Kaul, P.E.
 Director
 Division of Water

ERRATA SHEET FOR JUNE 1998 EDITION OF THE DIVISION OF WATER TECHNICAL
AND OPERATIONAL GUIDANCE SERIES (TOGS) NUMBER 1.1.1

January 1999

The H(W) Type guidance value for Class A, A-S, AA and AA-S waters for the substance 1,1-dichloroethene (CAS No. 75-35-4) in Table 1 of the June 1998 edition of TOGS 1.1.1 is incorrectly listed as 0.7 ug/L. The CORRECT H(W) Type guidance value for these surface water classes is 0.07 ug/L.

**APRIL 2000 ADDENDUM TO JUNE 1998 DIVISION OF WATER TECHNICAL AND OPERATIONAL
GUIDANCE SERIES (TOGS) NO. 1.1.1. (Originator - Scott Stoner)**


**TABLE 1
NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
April 2000**

SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Acetaldehyde (75-07-0)	A, A-S, AA, AA-S GA		8 8	H(WS) H(WS)	A A
n-Butanol (71-36-3)	A, A-S, AA, AA-S GA		50 50	H(WS) H(WS)	Z Z
Carbon disulfide (75-15-0)	A, A-S, AA, AA-S GA		60 60	H(WS) H(WS)	B B
Formaldehyde (50-00-0)	A, A-S, AA, AA-S GA		8 8	H(WS) H(WS)	A A
Methyl tert-butyl ether (MTBE) (1634-04-4)	A, A-S, AA, AA-S GA		10 10	H(WS) H(WS)	A A

**TABLE 5
NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)
April 2000**

SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Acetaldehyde (75-07-0)	8	B
n-Butanol (71-36-3)	50	B
Carbon disulfide (75-15-0)	60	B
Formaldehyde (50-00-0)	8	B
Methyl tert-butyl ether (MTBE) (1634-04-4)	10	B

In addition, n-butanol (listed synonymously as 1-butanol), carbon disulfide, formaldehyde and methyl tert-butyl ether are deleted from Table 3 of TOGS 1.1.1.


 NG. Kaul, P.E.
 Director
 Division of Water

JUNE 2004 ADDENDUM TO JUNE 1998 DIVISION OF WATER TECHNICAL AND OPERATIONAL
GUIDANCE SERIES (TOGS) NO. 1.1.1.

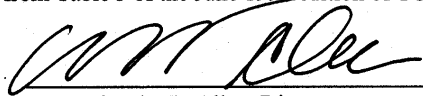
(Originator- Scott Stoner)

TABLE 1 NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES					
SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (ug/L)	GUIDANCE VALUE (ug/L)	TYPE	BASIS CODE
Metolachlor ESA (171118-09-5)	A, A-S, AA, AA-S GA		50	H(WS)	Z
			50	H(WS)	Z
Metolachlor OA (152019-73-3)	A, A-S, AA, AA-S GA		50	H(WS)	Z
			50	H(WS)	Z
Propylene glycol (57-55-6)	A, A-S, AA, AA-S GA		*	H(WS)	G
			*	H(WS)	G

Remark *Guidance value is 1,000 ug/L except that a guidance value of 300 ug/L applies at the point of intake of a public or private water supply that uses ozonation in its treatment process.

TABLE 5 NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA)		
SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (ug/L)	CATEGORY
Metolachlor ESA (171118-09-5)	50	B
Metolachlor OA (152019-73-3)	50	B
Propylene glycol (57-55-6)	1,000	B

In addition, metolachlor and propylene glycol are deleted from Table 3 of the June 1998 edition of TOGS 1.1.1.


Sandra L. Allen, Director
Division of Water

APPENDIX E

Soil Boring Logs



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC	Boring ID: SB-RI1
Site Name: 255 Randolph Street, Brooklyn, New York	Boring Location: See Site Sketch
Site Location: 255 Randolph Street, Brooklyn, New York	Surface Elev. (ft.):17 (est.)
LEA Job #: 16-203.1	DTW (ft): 13 (est.)
Field Geologist: Albert Kim	Drill Type: 6712DT
Driller: Steve Bitetto	Sample Type: Split:
Weather Cond.: Cloudy, Humid	Grab:
Temp: 90°F	Core: X

DEPTH	Boring Profile*	DESCRIPTION			SOIL TYPE CODES	
		COLOR	PID	MATERIAL DESCRIPTION		
0	Other	White	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	Other	Black	15,000	Suspected fill material	Poorly graded gravels or gravel/sand mix (GP)	
2					Well graded sands, gravelly sands, no fines (SW)	
3					Poorly graded sands, gravelly sands, no fines (SP)	
4	SP	Brown	15,000	Poorly graded silty sand	Silty sands, sand silt mixtures (SM)	
5	Other	Black	15,000	Suspected fill material	Inorganic silts, fine sand, silty-clayey fine sands (ML)	
6					Inorganic clays, gravelly/sandy clays, silty clays (CL)	
7					Organic silts, organic silty clays of low plasticity (OL)	
8	GW	Brown	15,000	Well graded gravelly sand	Organic clays of med. to high plasticity, organic silts (OH)	
9					Peat and other highly organic soils (PT)	
10					Bedrock etc. (BD)	
11	GP	Brown	15,000	Poorly graded gravelly sand, groundwater at ~11 ft	Other (fill, etc)	
12						
13						
14						
15						

COMMENTS:	Groundwater encountered at approximately 11 feet, high PID readings throughout
Sample Intervals : 0-2' and 10-12' intervals selected for analysis	
	Boring ID: SB-RI1



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI2
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)
LEA Job #: 16-203.1		DTW (ft): 13 (est.)
Field Geologist: Albert Kim		Drill Type: 6712DT
Driller: Steve Bitetto		Sample Type: Split:
Weather Cond.: Cloudy, Humid		Grab:
Temp: 90°F		Core: X

DEPTH	Boring Profile*	COLOR	PID	DESCRIPTION	SOIL TYPE CODES	
				MATERIAL DESCRIPTION		
0	Other	Orge	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	SP	Dark Brown	15,000	Poorly graded silty sand	Poorly graded gravels or gravel/sand mix (GP)	
2						
3	Other	Black	15,000	Asphalt looking material, suspected fill	Well graded sands, gravelly	
4	SW	Orange	15,000	Well graded sand	sands, no fines (SW)	
5	SM	Brown	15,000	Silty sand	Poorly graded sands,	
6	Other	Black	15,000	Rocky layer, suspected fill	gravelly sands, no fines (SP)	
7	SM	Brown	15,000	Silty sand	Silty sands, sand silt	
8	SM	Brown Orange	15,000	Silty sand	mixtures (SM)	
9						
10	SM	Tan Brown	15,000	Silty sand, groundwater at ~13 feet	Inorganic silts, fine sand, silty-clayey fine sands (ML)	
11						
12						
13						
14						
15					Organic silts, organic silty clays of low plasticity (OL)	
					Organic clays of med. to high plasticity, organic silts (OH)	
					Peat and other highly organic soils (PT)	
					Bedrock etc. (BD)	
					Other (fill, etc)	

COMMENTS: Groundwater encountered at approximately 13 feet, high PID readings throughout
Sample Intervals : 0-2' and 11-13' intervals selected for analysis
Boring ID: SB-RI2



Laurel Environmental Associates Ltd.

Soil Boring Log

Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI3	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

DEPTH	Boring Profile*	COLOR	PID	DESCRIPTION	SOIL TYPE CODES	
				MATERIAL DESCRIPTION		
0	Other	White	0	Concrete at surface	Well graded gravels or gravel/sand mix (GW)	
1	SP	Orange	15,000	Poorly graded silty sand	Poorly graded gravels or gravel/sand mix (GP)	
2					Well graded sands, gravelly sands, no fines (SW)	
3					Poorly graded sands, gravelly sands, no fines (SP)	
4					Silty sands, sand silt mixtures (SM)	
5					Inorganic silts, fine sand, silty-clayey fine sands (ML)	
6	Other	Black	15,000	Asphalt looking material, suspected fill	Inorganic clays, gravelly/sandy clays, silty clays (CL)	
7					Organic silts, organic silty clays of low plasticity (OL)	
8					Organic clays of med. to high plasticity, organic silts (OH)	
9					Peat and other highly organic soils (PT)	
10					Bedrock etc. (BD)	
11	SP	Brown	15,000	Poorly graded silty sand, groundwater at ~13 feet	Other (fill, etc)	
12						
13						
14						
15						

COMMENTS: Groundwater encountered at approximately 13 feet, high PID readings throughout	
Sample Intervals : 0-2' and 11-13' intervals selected for analysis	
	Boring ID: SB-RI3



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI4	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.):17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	
Weather Cond.: Cloudy, Humid		Grab:	
Temp: 90°F		Core: X	

COMMENTS: <u>Groundwater encountered at approximately 13 feet</u>	
Sample Intervals : 0-2' and 11-13' intervals selected for analysis	
	Boring ID: SB-RI4



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI5	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.): 17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

COMMENTS: Groundwater encountered at approximately 12 feet	
Sample Intervals : 0-2' and 10-12' intervals selected for analysis	
	Boring ID: SB-RI5



Client : 255 Randolph Street Properties, LLC		Boring ID: SB-RI6	
Site Name: 255 Randolph Street, Brooklyn, New York		Boring Location: See Site Sketch	
Site Location: 255 Randolph Street, Brooklyn, New York		Surface Elev. (ft.):17 (est.)	
LEA Job #: 16-203.1		DTW (ft): 13 (est.)	
Field Geologist: Albert Kim		Drill Type: 6712DT	
Driller: Steve Bitetto		Sample Type:	Split:
Weather Cond.: Cloudy, Humid			Grab:
Temp: 90°F			Core: X

COMMENTS: <u>Groundwater encountered at approximately 12 feet, high PID readings below 9 feet</u>	
Sample Intervals : 0-2' and 9-11' intervals selected for analysis	
	Boring ID: SB-RI6

APPENDIX F

Water Quality Data

Groundwater Monitoring Well Depths and Chemistry

255 Randolph Street, Brooklyn, New York

18-Jul-16

Monitoring Well #	<i>MW-1</i>			<i>MW-2</i>			<i>MW-3</i>			<i>MW-4</i>		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	13.83			12.8			13.79			14.31		
Depth To Bottom	20			20			20			20		
Total Water	6.17			7.2			6.21			5.69		
Temperature (°C)	19.64	17.39	17.07	17.5	17.21	12	12.2	12.2	12.2	10.7	10.8	10.7
Dissolved Oxygen (mg/L)	3.87	3.98	4.09	4.75	4.69	2.97	2.8	2.69	2.43	4.4	3.5	2.89
Conductivity (S/cm)	1052.12	1075.18	1069.07	925.49	950.54	92.5	305.2	304.6	304.6	122.6	134.3	142.4
pH	7.27	6.99	6.93	7	6.95	6.12	5.64	5.61	5.61	7.52	8.67	9.4
Oxidation-Reducing Potential	172.72	153.07	142.87	331.96	348.81	45.5	74.9	74.8	74.6	-72.3	-73.9	-74.4
Turbidity	28.9	7.34	3.71	37.3	12.4	12.6	9.39	8.87	9.39	15	10	9.21

Groundwater Monitoring Well Depths and Chemistry

80 Banks Avenue, Rockville Center, New York

27-Jan-16

Monitoring Well #	2010-3A			2010-3B			2010-3C			2010-3D		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	5.9			5.9			6.25			5.8		
Depth To Bottom	100			70			50			15		
Total Water	94.1			64.1			43.75			9.2		
Temperature (°C)	9.7	10.4	11.8	12.7	12.4	12.6	12.5	12.4	12.3	12.8	12.8	12.7
Dissolved Oxygen (mg/L)	3.6	3.03	4.78	1.16	1.73	1.13	2.53	1.73	1.29	6.35	2.13	1.31
Conductivity (S/cm)	160	168.3	5.2	194.7	206.9	197.3	210	206.9	204.7	907	1398	1170
pH	6.69	6.06	7.05	6.98	5.71	6.87	5.53	5.71	5.84	6.38	7.01	7.38
Oxidation-Reducing Potential	-150	114.6	-57.5	123.3	82.4	111.8	77.8	82.4	86.6	31.2	20.4	11.8
Turbidity	error	error	error	43.1	7.16	38.8	6.5	7.16	7.07	1.98	2.07	1.71

Dup

Monitoring Well #	2013-4A			2013-4B			2013-4C			2010-4D		
Test Number	1	2	3	1	2	3	1	2	3	1	2	3
Depth To Water	4.63			5.37			5.4			8.14		
Depth To Bottom	100			70			50			15		
Total Water	95.37			64.63			44.6			6.86		
Temperature (°C)	13.4	13.5	13.7	13.7	12.7	13.3	13.6	13.6	13.7	13.2	13.2	13.2
Dissolved Oxygen (mg/L)	5.01	2.2	1.97	9.98	6.23	4.02	2.6	1.14	2.84	2.29	1.12	1.16
Conductivity (S/cm)	78.8	79.6	80.1	127.5	1125	127.9	316.4	340.7	12.6	521	554	584
pH	6.71	6.62	6.48	6.13	5.82	5.91	5.54	5.69	5.88	7.93	7.89	7.97
Oxidation-Reducing Potential	189.3	13.2	32.2	13	28.6	20.3	20.7	20.2	12.5	-51.3	-43.2	-32.3
Turbidity	20	13	9.88	19.6	22.2	45.5	56.8	46.3	32.8	13.4	17.7	46.3

Calibration Verification	Standard 1	Standard 2	Standard 3	Standard 4
Standard Value				
Field Value				

APPENDIX G

Personnel Qualifications

SCOTT A. YANUCK, C.E.I., C.E.S.

EDUCATION: STATE UNIVERSITY OF NEW YORK AT STONY BROOK

B.A., Earth and Space Sciences, December, 1987, Minor in Technology and Society.

M.SSc., Hydrogeology, May, 1993. Course work included classes in Geophysics, Chemical Hydrogeology, Organic Contaminant Hydrology, and Computer Modeling.

EXPERIENCE:

PRINCIPAL, MANAGING HYDROGEOLOGIST

LAUREL Environmental Associates, Ltd.

- ☐ Supervise all technical and financial operations of environmental consulting firm.
- ☐ Completed OSHA 40 Hour HAZWOPER Supervisors course, 8 Hour Refresher Courses.
- ☐ Geoprobe Systems Training on Direct Push Techniques including well installation and pump tests
- ☐ Completed ASTM Environmental Site Assessment training course for professionals.
- ☐ Completed NJDEPE UST Certification Program.
- ☐ Completed Mold Remediation Manage Course based on NYC DOH Guidelines
- ☐ NYSDOL Asbestos Inspector, #AH97-08528
- ☐ GSSI Certification in Ground Penetrating Radar

September, 1992-present

PROJECT MANAGER, GROUP SUPERVISOR: ENVIRONMENTAL SERVICES

Richard D. Galli, P.E., P.C.

In charge of Environmental Services Group. Scope of work within group includes the following:

- ☐ Phase I Environmental Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ State Superfund RI/FS.
- ☐ Indoor Air Quality (IAQ) studies.

In addition to performing any of the above-mentioned work, personally responsible for project management, including project setup, project review and quality control/quality assurance of proposals and reports generated by the environmental group.

PROJECT MANAGER, HYDROGEOLOGY

Richard D. Galli, P.E., P.C.

Performed all aspects of numerous Phase I Environmental Assessments.

Performed and supervised Phase II and Phase III investigations and remediation. Duties included proposal writing, historical investigations, soil and water sampling, supervision of well drilling teams, supervision of remediation work, supervision of underground storage tanks removals, groundwater studies, and report writing.

Knowledgeable in Ground Water Computer Modeling with *canned* programs as well as developing new programs. Worked to set up a GIS based system capable of mapping CERCLA and NPL site, NYSDEC Spills and Inactive Hazardous Waste Sites, etc., to aid in performing Audits.

Certified: OSHA Forty Hour HAZWOPER Course, NIOSH 582.

SCOTT A. YANUCK CONTINUED

TECHNICIAN, FIELD AND LABORATORY

Kemron Environmental Services, Inc.

Worked as an industrial hygienist, taking air and bulk samples, and performing Indoor Air Quality (IAQ) studies. As a Polarized Light Microscopist, analyzed bulk samples for asbestos. Analyzed samples from the *Gramercy Park steam pipe explosion* and was detailed to St. Croix for on-site sampling and analysis at the Hess oil refinery during the cleanup of *Hurricane Hugo*. Also worked as GC/MS and HPLC technician. June, 1989-July, 1990 full time, continuing part time to 1993.

CONSTRUCTION SUPERVISOR, DEVELOPER

SHY Building Corporation, Huntington, NY.

Managed land development and housing construction. Scheduling and supervision of all trades necessary. Duties included the following:

- ☐ Design of drainage structures
- ☐ Design of buildings/renovations
- ☐ Surveying in conjunction with road/drainage construction.
- ☐ Property acquisition.
- ☐ Submitted applications for subdivision, building permits, and sanitary/water permits to Town and County agencies.
- ☐ Supervision of UST installations.
- ☐ Geotechnical and environmental inspections of properties/building sites.
- ☐ Energy efficient building design and implementation.

AFFILIATIONS

Air & Waste Management Association

American Institute of Professional Geologists

American Society for Testing and Materials

Active Committee Member E-40, Subsurface Investigations

Active Committee Member E-50, Environmental Assessment

Active Committee Member E-50.1, Underground Storage Tanks

Environmental Assessment Association, Certified Environmental Inspector and Specialist, #12200.

Hazardous Materials Control Resources Institute

Huntington Chamber of Commerce

Huntington Historical Society

Long Island Association

Long Island Builders Institute

Long Island Geologists

National Fire Protection Association

National Ground Water Society

New York State Council of Professional Geologists

US Green Building Council

KENNETH P. WENZ, JR., C.P.G., L.E.P., P.G.

EDUCATION:

COLGATE UNIVERSITY, B.A., Geology, May 1983.

UNIVERSITY OF MASSACHUSETTS, AMHERST, M.S., Geology, December 1988.

LICENSES/REGISTRATIONS/CERTIFICATIONS:

CERTIFIED PROFESSIONAL GEOLOGIST, C.P.G. 8934

LICENSED ENVIRONMENTAL PROFESSIONAL (CONNECTICUT), L.E.P. 408

REGISTERED PROFESSIONAL GEOLOGIST (PENNSYLVANIA), P.G. PG-001273-G

OSHA HAZWOPER Certified

EXPERIENCE:

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

LAUREL Environmental Associates, Ltd.

Duties include the following:

- ☐ Supervise technical staff.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ State Superfund Site Investigation/Remediation Programs.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Injection Control Remediation and Closure.
- ☐ Vapor Intrusion Investigations.
- ☐ Project management.

May 2016 - present

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

Genesis Engineering and Redevelopment, Inc.

Duties included the following:

- ☐ Phase II Environmental Assessments.
- ☐ Contributing Source Investigations.
- ☐ Groundwater Contamination Studies.
- ☐ Hazardous Site Remediation.
- ☐ State Superfund Site Investigations.
- ☐ Soil Vapor/Indoor Air Quality studies.

April 2012 – May 2016

SENIOR PROJECT MANAGER/SENIOR GEOLOGIST

Holzmacher, McLendon & Murrell, P.C.

Duties included the following:

- ☐ Supervise technical staff.
- ☐ Project management.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ Federal Superfund Site Investigation/Remediation Programs.
- ☐ Landfill Post-Closure Monitoring Programs.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Injection Control Investigation, Remediation, and Closure.
- ☐ Spill Investigation and Remediation.

March 2007 – October 2011

KENNETH P. WENZ, JR. CONTINUED

SENIOR ASSOCIATE

Dvirka and Bartilucci Consulting Engineers

Duties included the following:

- ☐ Supervise technical staff.
- ☐ Project management.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ State Superfund Investigation/Remediation Programs.
- ☐ Landfill Post-Closure Monitoring Programs.
- ☐ Soil and Groundwater Contamination Studies.
- ☐ Spill Investigation and Remediation.

September 1997 – March 2007

SENIOR PROJECT HYDROGEOLOGIST

ERM-Northeast

Duties included the following:

- ☐ Design and implementation of site investigation programs.
- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Site Assessments.
- ☐ Sampling and Remediation Inspection for Underground Storage Tanks.
- ☐ State Superfund Site Investigations.
- ☐ Data assessment and report preparation.

July 1989 – August 1997

GEOLOGIST

U.S. Environmental Protection Agency

Duties included the following:

- ☐ Internal consultant to Superfund and RCRA Programs.
- ☐ Sole Source Aquifer designation and review of projects within Sole Source Aquifers.
- ☐ Technical management of federal groundwater grant to New Jersey.

April 1987 – July 1989

AFFILIATIONS

American Institute of Professional Geologists (National Screening Board member 1996 - Present)

Environmental Professionals Organization of Connecticut

Long Island Association of Professional Geologists (Board member 1996 – Present, Vice-President 2016 - Present)

National Ground Water Association

New York State Council of Professional Geologists (Outreach Committee member, 2015 – Present)

Pennsylvania Council of Professional Geologists

BRIAN C MCCABE

EDUCATION: STATE UNIVERSITY OF NEW YORK AT STONY BROOK

B.S, Geology, September, 1991, Minor in Marine Science.

M.SSc., Hydrogeology, Pending. Course work included classes in Geophysics, Chemical Hydrogeology, Organic Contaminant Hydrology, and Bio-Remediation.

EXPERIENCE:

SENIOR GEOLOGIST

LAUREL Environmental Associates, Ltd.

- ☐ Phase I Environmental Site Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ Completed OSHA 40 Hour HAZWOPER Supervisors course, 8 Hour Refresher Courses.
- ☐ Completed ASTM Environmental Site Assessment training course for professionals.

January, 2012-present

PROJECT MANAGER, DEPARTMENT MANAGER: PROFESSIONAL SERVICES

Fenley & Nicol Environmental Inc.

In charge of Environmental Services Group. Scope of work within group includes the following:

- ☐ Phase I Environmental Assessments.
- ☐ Phase II Environmental Assessments.
- ☐ Groundwater Contamination Studies.
- ☐ Underground Storage Tanks (UST'S): testing, removal, closure.
- ☐ Underground Injection Well Closure (UIC)
- ☐ Hazardous Site Remediation.
- ☐ Construction and operation of remediation system.

In addition to performing any of the above-mentioned work, personally responsible for project management, of professional staff project, which, included review of proposals and reports generated by the professional service department.

Certified: OSHA Forty Hour HAZWOPER Course
Preston Groundwater Remediation Course
ASTM 1527-05 Environmental Site Assessment training course
Waterloo, Groundwater modeling I training course
Exxon-Mobil, LPS training
LIRR Track Safety training

September, 1997-July, 2012

BRIAN C MCCABE CONTINUED

FIELD TECHNICIAN, AND LABORATORY SUPERVISER

Kemron Environmental Services, Inc.

FIELD TECHNICIAN – Collected waste water and Indoor Air Quality (IAQ) samples.

LABORATORY SUPERVISER, - Supervised and performed the analysis of asbestos air and bulk samples utilizing Phase Contrast and Polarized Light Microscopist. Performed on-site sampling and analysis of asbestos air and bulk samples at the Hess oil refinery in St. Croix during the cleanup of *Hurricane Hugo*. Also worked as GC/MS and HPLC technician. Perform air, bulk and water analysis for metals utilizing ICP and Flame AA instrumentation.

Part time from February 1990-May 1991

Full time from May 1991-September 1997

AFFILIATIONS

Long Island Geologists

United States Coast Guard Auxiliary

STEVEN C. BITETTO

EXPERIENCE

Environmental Technician, Laurel Environmental Associates, Ltd., Huntington, NY

October 2006 - Present

- ☐ Phase II Subsurface Soil, Soil Vapor and Groundwater Investigations
- ☐ Remediation/Phase III projects
- ☐ Sub-Slab Soil Vapor and Indoor Air Quality (IAQ) studies
- ☐ Groundwater Quality Investigations
- ☐ Underground Injection Well Closure (UIC)
- ☐ UST removals, abandonments and spill closures
- ☐ Hazardous site remediation

FIELD SKILLS:

- ☐ Performs various methods of soil, soil vapor and groundwater sampling, groundwater monitoring
- ☐ Experienced with truck-mounted, track mounted and portable Geoprobe® machines and tooling
- ☐ Supervises ground penetrating radar, magnetic and utility surveys
- ☐ Supervises leaching pool remediation
- ☐ Performs and supervises direct push and hollow stem auger monitoring well installation
- ☐ Experienced with various field screening and monitoring equipment such as Photo Ionization Detector and water quality instruments
- ☐ Experienced with magnetic and pipe locating equipment

RELATED QUALIFICATIONS

- ☐ Geoprobe Systems Direct Push Training – setting standard and pre-pack monitoring wells.
- ☐ Regenesi Advanced Technologies for Contaminated Site Remediation and Gas Vapor Intrusion Management
- ☐ Geophysical Survey Systems, Inc. Utility Scan Ground Penetrating Radar Two Day Class
- ☐ Completed OSHA 40 HOUR HAZWOPER with confined space, 8 Hour Refresher Course to current
- ☐ OSHA HAZWOPER physical to current

ALBERT KIM

EDUCATION:

BA., Geological Science, May 2012

- ❑ State University of New York at Geneseo

RELATED COURSE

- ❑ Geology Science I & II, Mineralogy, Petrology, Structural Geology, Stratigraphy, Geology of Climate Change and Energy, Geomorphology, Isotope Geology, Chemistry I & II, Physics I & II, Calculus I & II, Biology I & II, Organic Chemistry I

EXPERIENCE:

Geologist, Laurel Environmental Associates, Ltd., Huntington NY

July 2013-Present

- ❑ Environmental Transaction Screens
- ❑ Phase I Environmental Site Assessments
- ❑ Groundwater Quality Investigations
- ❑ Utility mark outs using Ground Penetrating Radar and Line Locator
- ❑ Septic System Remediation
- ❑ Conducts Historical Research for Phase I Environmental Site Inspections
- ❑ Assists in Phase II Operations

FIELD SKILLS:

- ❑ Performs various methods of soil sampling and groundwater sampling: split spoon soil sampling, groundwater monitoring well installation, purging & sampling, soil-vapor sampling, UST sampling & registration, dye trace & floor drain closure, magnetometer survey
- ❑ Assists with truck-mounted/track mounted Geoprobe® machines and tooling
- ❑ Oversees leaching pool “super sucker” remediation
- ❑ Experience/Proficient with the GSSI UtilityScan™ DF ground penetrating radar and the SPX® Radiodetection® RD 8000 line locator for marking out utilities, geotechnical drilling, ground penetrating radar survey, and locating other buried anomalies
- ❑ Performs and assists direct push and hollow stem auger monitoring well installation
- ❑ Assists drilling and installation of groundwater monitoring wells, drilling of borings, and UST removals and abandoning
- ❑ Experience with PID, hand auger, soil-vapor probe, soil dredge sampler, magnetometer, pH meter

DINA PALAZZOLO

EDUCATION: SUSQUEHANNA UNIVERSITY

B.S., Earth and Environmental Sciences, May 2015

Departmental Honors, Magna Cum Laude

RELATED COURSES:

Hydrology, Chemistry of Natural Water, Geology, Ground Penetrating Radar, Green Chemistry, Sedimentology and Stratigraphy, ArcGIS, Sustainable Energy, Environmental Geophysics, Physics I, Chemistry I & II, Calculus I & II

EXPERIENCE:

Environmental Consultant, Laurel Environmental Associates, Ltd., Huntington NY
Summer 2014, May 2015 - Present

- ☐ Execute phase I and II environmental site assessments
- ☐ Perform cesspool, groundwater, and dry well soil samplings
- ☐ Aids in pilot testing of soil vapor extraction remediation systems
- ☐ Write to completion environmental phase I and phase II reports
- ☐ Air quality sampling for mold analysis and soil vapors

FIELD AND TECHNICAL SKILLS

- ☐ Experience using X-Ray Diffractometer, Spectro Xepos X-Ray Fluorescence
- ☐ Water quality analysis
- ☐ Slug tests
- ☐ Ground penetrating radar and analysis of data with Radan 7
- ☐ Completed projects with ArcGIS
- ☐ Utilizing SuperSting resistivity meter for projects and investigations
- ☐ Experience with Computers: Microsoft Office Suite

JAMIE BURGHER

EDUCATION: STONY BROOK UNIVERSITY

B.S., Geology, May 2016

Departmental Honors, Magna Cum Laude

RELATED COURSES:

Field Geology, Geophysical Survey Methods, Introduction to Geochronology and Thermochronology, Introduction to Geophysics, Igneous and Metamorphic Petrology, Sedimentation and Stratigraphy, Structural Geology, Mineralogy, GIS Design and Application, GIS Project Management, Linear Algebra, Differential Equations.

EXPERIENCE:

Geologist, Laurel Environmental Associates, Ltd. Huntington, NY.

June 2016 - Present

- ☐ Execute phase I environmental site assessments
- ☐ Provide site oversight to ensure compliance with environmental regulations
- ☐ Draft phase I environmental reports

Research Assistant, Stony Brook University. Stony Brook, NY.

September 2015 – Present

- ☐ Carry out geophysical investigations of suspected glaciotectionic structures
- ☐ Lead small groups in successfully completing field work
- ☐ Provide assistance to large groups of students learning the fundamentals of field work
- ☐ Use java based GIS systems to map extent of objects and establish relationships
- ☐ Compare terrestrial analogues to structures seen on Mars

FIELD AND TECHNICAL SKILLS:

- ☐ Extensive experience using ground penetrating radar (GPR) units (50 – 800 MHz)
- ☐ Processing of GPR data for use in presentations and publications
- ☐ Practical experience in the use of magnetometers and gravimeters
- ☐ Knowledge of multiple surveying techniques to make accurate topographic measurements
- ☐ Use of ArcGIS and jMARS software to create information products
- ☐ Ability to create dynamic presentations using Microsoft PowerPoint
- ☐ Capable of drafting Excel spreadsheets to meet user specific demands

KENDRA ARMSTEAD

EDUCATION: STONY BROOK UNIVERSITY

B.A., Sustainability Studies, December 2013

Departmental Honors, Summa Cum Laude

M.U.P., Environmental Planning, In Progress

RELATED COURSES

Environmental Science, Environmental Resource Management, Chemistry 1, Biology 1, Calculus 1, GIS Geospatial Analysis, Systems and Models (STELLA), Environmental Economics and Management, Technical Writing, Restoration Ecology

EXPERIENCE

Environmental Scientist, Laurel Environmental Associates, Ltd., Huntington NY

June 2016- Present

- ☐ Execute Phase I and Phase II environmental site assessments
- ☐ Draft Phase I and Phase II environmental reports
- ☐ Conduct historical research for Phase I environmental site assessments and report
- ☐ Oversee site remediation projects to ensure compliance with environmental regulations
- ☐ Perform cesspool, groundwater, and dry well soil sampling

FIELD AND TECHNICAL SKILLS

- ☐ Generate dynamic systems models with STELLA program
- ☐ Extensive technical writing for environmental research and feasibility studies
- ☐ Geospatial analysis mapping
- ☐ Proficient with Microsoft Office Suite



PHASE II SUBSURFACE INVESTIGATION

**255 Randolph Street
Brooklyn, NY 11237
Block 2979, Lot 45**

ACT Project No. 7610-BKNY

February 21st, 2014

Prepared for:

**Ms. Junis Yeung
Cathay Bank
41-48 Main Street
Flushing, New York 11355**

Prepared by:

**Advanced Cleanup Technologies, Inc.
960 South Broadway, Suite #100
Hicksville, New York 11801**



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FIGURES

<u>NUMBER</u>	<u>TITLE</u>
1	Site Locational Diagram
2	GPR Survey Diagram
3	Sampling Location Diagram

TABLES

<u>NUMBER</u>	<u>TITLE</u>
1	Volatile Organic Compounds in Soil
2	Semi-Volatile Organic Compounds in Soil
3	Metals in Soil
4	PCBs/Pesticides in Soil
5	Volatile Organic Compounds in Groundwater
6	Semi-Volatile Organic Compounds in Groundwater
7	Total and Dissolved Metals in Groundwater
8	PCBs/Pesticides in Groundwater

APPENDICES

<u>SECTION</u>	<u>TITLE</u>
A	Previous Environmental Reports
B	Boring Logs
C	Laboratory Reports



1.0 INTRODUCTION AND SCOPE OF INVESTIGATION

A Phase II Subsurface Investigation was performed by Advanced Cleanup Technologies, Inc. (ACT) on February 10th through February 12th, 2014 at the property located at 255 Randolph Street, Brooklyn, New York (“the site”). The purpose for the subsurface investigation was to determine any impacts associated with the historical industrial uses and a suspect underground storage tank at the site.

A geophysical survey was performed to determine the existence of suspect underground gasoline and fuel oil tanks (USTs). The scope of work also included the collection of four soil samples from four boring locations throughout the site, the installation of four temporary groundwater-monitoring wells from soil boring locations and the collection of four groundwater samples. Finally, the scope of work included the laboratory analysis of four soil samples and four groundwater samples by a New York State Department of Health (NYSDOH) certified laboratory in accordance with protocols established by the United States Environmental Protection Agency (USEPA).

Soil and groundwater quality data was compared to New York State Department of Environmental Conservation (NYSDEC) soil cleanup objectives contained in NYSDEC Part 375-6.8(a) Unrestricted Used Soil Cleanup Objectives, appropriate Part 375-6.8(b) Restricted Soil Cleanup Objectives and NYSDEC Part 703 Groundwater Quality Standards (GQS) (class GA) or Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS).

2.0 SITE DESCRIPTION

2.1 Site Location

A diagram of the site vicinity is provided as Figure 1. The site is located on the northern side of Randolph Street in an industrial area in the northern portion of the borough of Brooklyn in New York City. The Site is bounded by railroad tracks followed by a 2-story industrial building to the north, 2-story industrial buildings to south and east and a 1-story industrial building to the west.



The nearest surface water body, Newtown Creek, is located approximately 1,270 feet to the north. The East River is located approximately 2.5 miles to the west. Regional groundwater is believed to flow to the north towards Newtown Creek.

2.2 General Description

The site (Block 2979, Lot 45) consists of a one- and two- story commercial warehouse occupied by Handy Lee Enterprises Inc., an importer of packaged food products and supplies. The lot is approximately 18,600 square feet and the building is 17,800 square feet in area.

2.3 Previous Environmental Reports

A Phase I Environmental Site Assessment Report (Phase I) was completed by ACT dated January 24th, 2014. The Phase I identified the following recognized environmental conditions:

- Historical industrial use of the subject property.
- A suspect underground fuel oil storage tank.

The Phase I recommended that a Phase II Subsurface Investigation be performed to determine whether the above recognized environmental conditions had impacted the environmental quality of the subject property. A copy of the Phase I is included in Appendix A.

3.0 FINDINGS OF THE INVESTIGATION

3.1 Geophysical Investigation

A geophysical survey was performed on January 10th, 2014, which encompassed the sidewalk, basement, accessible portions of the interior of the warehouse and part of the loading dock. The survey was performed to determine the existence and location of a suspected UST at the site. Surveyed areas are depicted in Figure 2. Field notes from the survey are contained in Appendix A.

The survey was performed utilizing an SIR-2000 GPR Unit and a 500 megahertz transducer, which allowed for the identification of anomalies to a depth of 10 feet bgs. The transducer was



pulled along pre-determined transects, emitting radar into the subsurface. The radar signal reflects off stratigraphical materials and foreign objects in the subsurface and back to the transducer based upon differences in the conductivity and dielectric constant of subsurface features. The radar signal is then converted into an electrical signal, which is visually displayed on a video monitor. No anomalies indicative of USTs were identified during the course of the GPR survey.

GPR is primarily used as a preliminary survey of a property for the development of subsurface information prior to a formal site assessment. Surface cover or obstructions, subsurface soil types and buried debris can mask or conceal the presence and precise locations of underground structures or even suggest their presence when none exist. The presence, absence or precise locations of underground structures indicated during a GPR survey should be confirmed by excavation, subsurface sampling or other invasive procedures.

3.2 Soil Boring Installation and Sampling

Four soil borings were installed at the locations indicated in Figure 3. The soil borings were installed utilizing a portable Geoprobe-style drill unit in combination with 4-foot macro-core soil samplers containing dedicated acetate liners. The sample located in the loading dock was installed utilizing a truck-mounted Geoprobe-style drill unit in combination with 5-foot macro-core soil samplers containing dedicated acetate liners. Soil samples were visually examined for lithology and the presence of contamination and field screened utilizing a Photovac 2020 hand held photoionization detector (PID). The PID is capable of detecting organic vapors at concentrations as low as 0.1 parts per million (ppm). All down hole drilling equipment was decontaminated between sampling events to minimize the possibility of cross-contamination. The boring logs are provided in Appendix B.

The soil boring located at SB-1 was installed to a depth of 5 feet below ground surface (bgs) in the basement boiler room. The soil generally consisted of yellow-brown, silty medium sand. The water table was encountered at approximately 4.5 feet bgs. PID readings were 0.0 ppm throughout the boring. A soil sample was collected from the groundwater interface approximately 2 to 4 feet bgs.

SB-2 was installed to a depth of 5 feet below ground surface (bgs) in the northern portion of the basement. The soil generally consisted of yellow-brown, silty medium sand. The water table was encountered at approximately 4 feet bgs. PID readings were 0.0 ppm throughout the boring. A soil sample was collected from the groundwater interface 2.5 to 3.5 feet bgs.

SB-3 was installed to a depth of approximately 16' bgs in the rear yard along the northern side of the site. The soil generally consisted of yellowish-brown medium silty sand mixed with gravel to approximately 10' bgs. From 10-15' bgs soil consisted of grayish-black, silty medium sand. No odors were observed over the depth of the boring. However, PID readings as high as 1,489 ppm were detected at the water table interface, approximately 13' bgs. A soil sample was collected from the area of maximum PID readings approximately 14-16' bgs.

Soil boring SB-4 was installed to a depth of approximately 15' below the concrete floor of the eastern loading dock along the southern property boundary. The ground surface at that location was approximately 2 feet bgs due to the recessed loading dock floor. The soil generally consisted of yellowish-brown medium to coarse sand mixed with gravel and trace silt. No odors were observed over the depth of the boring. However, PID readings were detected up to 398 ppm in a small layer of soil approximately 7' bgs. A soil sample was collected from 1-3' bgs where elevated PID readings were detected over a larger depth interval.

All soil samples were containerized and placed in a cooler for laboratory analysis and transmitted under chain of custody to H2M Laboratories, Inc. (NYSDOH # 10478). Soil samples were analyzed for volatile organic compounds (VOCs) in accordance with EPA Method 8260, semi-volatile organic compounds (SVOCs) in accordance with EPA Method 8270, RCRA Metals in accordance with EPA Method 6010 and PCB's/Pesticides in accordance with EPA Methods 8081/8082. Copies of the laboratory reports are contained as Appendix C.

3.3 Monitoring Well Installation and Sampling

Temporary monitoring wells were installed at each soil boring location, as depicted in Figure 2. The water table varied from 15 to 18 feet bgs across the property. TW-1 and TW-2 were installed in the basement to a depth of 6' bgs, while TW-3 was installed in the rear yard to a depth of 18' bgs and TW-4 was installed in a recessed loading dock to a depth of 15' bgs.

A total of four groundwater samples were collected and transmitted under chain of custody to H2M Laboratories, Inc. All groundwater samples were analyzed for VOCs in accordance with EPA Method 8260. Groundwater samples from TW-1 and TW-4 were also analyzed for SVOCs in accordance with EPA Method 8270, RCRA Metals in accordance with EPA Method 6010 and PCB's/Pesticides in accordance with EPA Methods 8081/8082. Copies of the laboratory reports are contained as Appendix C.

3.4 Soil Quality

The analytical results for soil samples from SB-1 through SB-4 are summarized in Tables 1 through 4. The soil quality data was compared to unrestricted, restricted residential and commercial use soil cleanup objectives (UUSCOs, RRSCOs and CSCOs) contained in Table 6.8 of 6 NYCRR Part 375.

As indicated in Table 1, SB-1 (2-4') and SB-2 (2.5-3.5') contained 3 VOCs, SB-3 (14-16') contained 12 VOCs and SB-4 (1-3) contained 5 VOCs. Two compounds Tetrachloroethene (PCE) and Trichloroethene (TCE) were detected in all of the soil samples. PCE was detected above CSCO's in SB-3 and SB-4 with a maximum concentration of 260,000 µg/kg in SB-4. TCE was detected above UUSCOs in SB-3 and above RRSCOs in SB-4, with a maximum of 52,000 µg/kg in SB-4.

Four other VOCs were detected above UUSCOs. 1,1,1-Trichloroethane (TCA) was detected in SB-4 at a concentration of 2,400 µg/kg. Cis-1,2-Dichloroethene and Vinyl Chloride were detected in SB-3 at concentration of 3,300 µg/kg and 120 µg/kg, respectively. A trace amount of Acetone (72 ug/kg) was also detected in SB-3, which may be a laboratory artifact.

All of the compounds found in unsaturated soil are classified as chlorinated solvents (CVOCs) commonly found in metal degreasers, cleaning solutions and paint thinners. Elevated CVOC concentrations were detected in both shallow soil and soil at the groundwater interface. Based on the site-wide presence of CVOCs, it is likely that the site is a source of these compounds.

Table 2 indicates that no SVOCs were detected in any of the soil samples. Table 4 indicates that no PCBs or pesticides were detected in soil samples.

A summary of metal concentrations in the soil samples is shown in Table 3. SB-1 contained 13 metals, SB-2 contained 18 metals and SB-3 and SB-4 contained 16 metals. Only two metals (Lead and Mercury) were detected above regulatory criteria. Lead was found in SB-2 slightly above UUSCOs. Mercury was found in SB-1 above UUSCOs and in SB-2 and SB-3 above RRSCOs. Metals are commonly found at higher concentrations in urban areas due to the presence of urban fill materials.

3.5 Groundwater Quality

The analytical results for the groundwater samples TW-1 through TW-4 are summarized in Tables 5 through 7. The groundwater quality data was compared to ambient water quality standards and guidance values contained in NYSDEC TOGS 1.1.1.

Table 5 shows the concentrations of VOC's in the groundwater. TW-1 contained 1 VOC, TW-2 contained 5 VOCs, TW-3 contained 8 VOCs and TW-4 contained 2 VOCs. TCA was found to exceed its groundwater standard in TW-3 with concentration of 53 µg/l. TW-3 also contained 1,1-Dichloroethane (26 µg/l) and Chloroform (12 µg/l) above their corresponding groundwater standards. TW-2 and TW-3 contained cis-1,2-Dichloroethene up to 1,100 µg/l, trans-1,2-Dichloroethene up to 17 µg/l and vinyl chloride up to 170 µg/l, all above groundwater standards. TCE was detected in three of four groundwater samples (TW-2 through TW-4) with a maximum concentration of 490 µg/l in TW-3. PCE was detected in all four samples, with a maximum concentration of 2,100 µg/l also in TW-3. Once again, all of these compounds are classified as CVOCs. The presence of CVOCs in each of the groundwater and their corresponding soil samples



indicates that the site is likely a source of these compounds.

It can be seen from Table 6 that no SVOC's, PCBs or Pesticides were detected in the groundwater samples.

Dissolved metals in groundwater are summarized Table 7. Both samples TW-1 and TW-4 contained 8 metals, all below groundwater standards. Metals are naturally occurring and commonly found in groundwater that receives stormwater runoff.

4.0 CONCLUSIONS

The results of the Phase II Subsurface Investigation are contained in this report. Based upon this investigation, ACT makes the following conclusions concerning the environmental quality of the site.

- The GPR survey did not identify the presence of USTs beneath the subject property.
- Shallow and deep soils beneath the site are contaminated with elevated CVOC's across the site, both in the interior of the warehouse and the rear yard.
- Shallow and deep soils beneath the site are contaminated with metals, both inside the basement and the rear yard.
- Groundwater beneath the site is impacted by CVOCs above regulatory criteria.
- Groundwater beneath the site does not contain metals exceeding regulatory criteria.

5.0 RECOMMENDATIONS

ACT recommends the following course of action to address the environmental impacts identified above. These tasks should be performed with oversight by responsible state or city regulatory agencies:

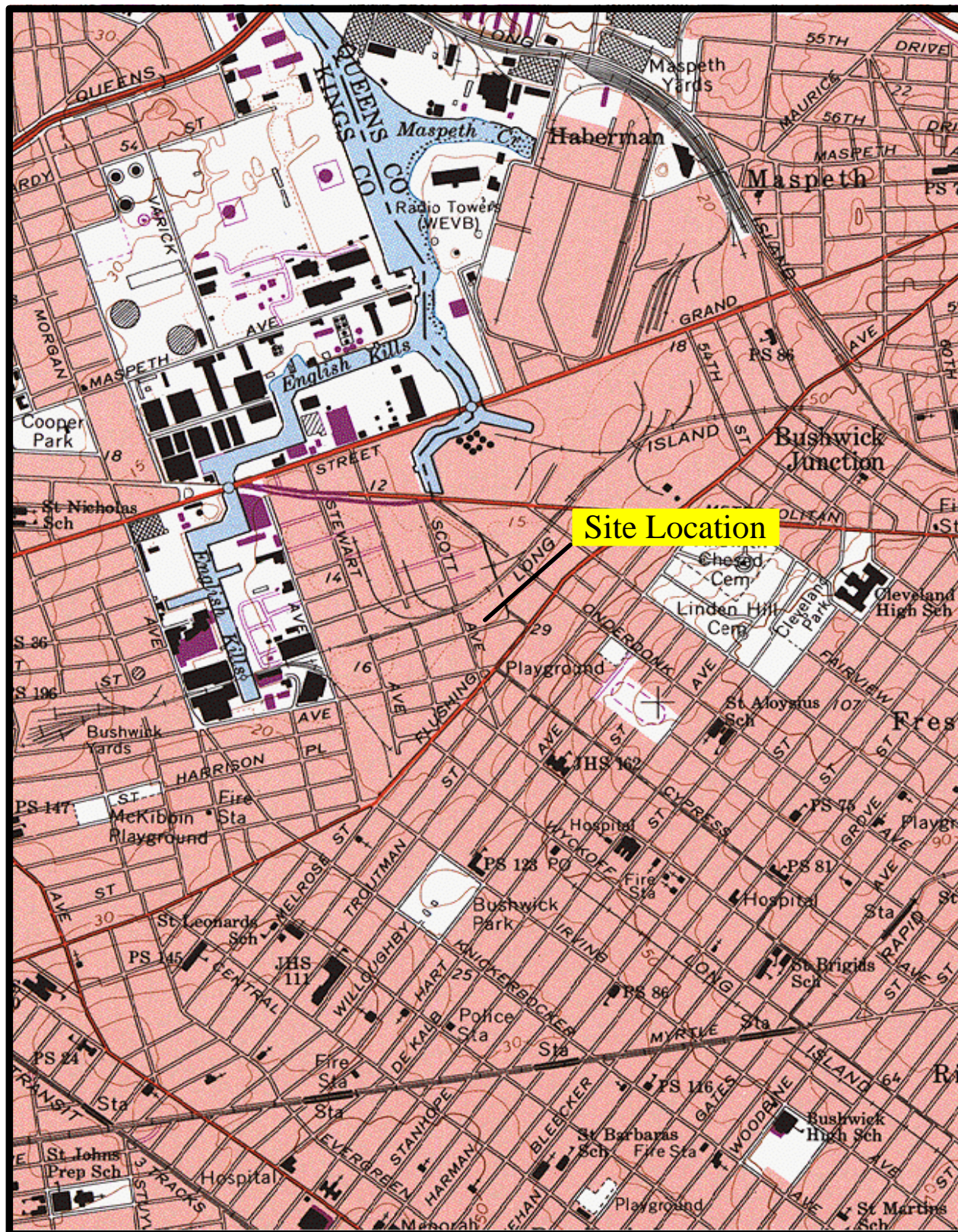
- Based on the elevated levels of CVOCs in soil and groundwater, the site should be entered into the New York State Brownfields Program. Once entered in the program, the NYSDEC and NYSDOH will oversee the proper remediation of the site.



EXCLUSIONS AND DISCLAIMER

The purpose of this investigation was to assess the potential environmental liabilities at the subject site with respect to data, which Advanced Cleanup Technologies, Inc. has accumulated during the Phase II Environmental Site Assessment. The conclusions presented in this report are based solely on the observations of the site at the time of the investigation. Data provided, including information provided by others, was utilized in assessing the site conditions. The accuracy of this report is subject to the accuracy of the information provided. Advanced Cleanup Technologies, Inc. is not responsible for areas not seen or information not collected. This report is given without a warranty or guarantee of any kind, expressed or implied. Advanced Cleanup Technologies, Inc. assumes no responsibility for losses associated with the use of this report.

FIGURES



From USGS 7.5 Minute Topographic Map Of
Brooklyn, NY Quadrangle



Locational Diagram

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS

960 S Broadway, Suite 108, Hicksville, New York 11801
Tel: 516-933-0655 Fax: 516-933-0659

Project No.: 7610-BKNY	Figure No.: 1
Date: 1/13/2014	Scale: 1 inch = 2000 feet

Overhead
Heater

Rear Yard

Partial
Basement

Oil
Filter

Bathroom

Crawl
Space

Inactive
Bioler

Fuel/Return
Lines

Interior
Alley

Office
(1St Floor)

Western
Loading
Dock

Eastern
Loading
Dock

Gas

Electric

Water

Sewer

Sidewalk

RANDOLPH STREET

Legend



Floor Drain



GPR Survey Location



GPR Survey Diagram



960 S. Broadway, Suite 100, Hicksville, New York 11801
Tel: 516-933-0655 Fax: 516-933-0659

Project No.: 7610-BKNY

Figure No.: **2**

Date: 02/19/2014

Scale: Not To Scale

Overhead
Heater

Rear Yard

SB-3/TW-3

Partial
Basement

SB-2/TW-2

SB-1/TW-1

Oil
Filter

Crawl
Space

Bathroom

Inactive
Bioler

Fuel/Return
Lines

Interior
Alley

Eastern
Loading
Dock

Office
(1St Floor)

Western
Loading
Dock

SB-4/TW-4

Gas

Electric

Water

Sidewalk

Sewer

RANDOLPH STREET

Legend



Floor Drain



Soil Boring/Temporary Well Location



Sampling Location Diagram



960 S. Broadway, Suite 100, Hicksville, New York 11801
Tel: 516-933-0655 Fax: 516-933-0659

Project No.: 7610-BKNY

Figure No.: **3**

Date: 02/19/2014

Scale: Not To Scale

TABLES

<p align="center"> Table 1 Volatile Organic Compounds in Soil (ug/kg-dry) EPA Method 8260 255 Randolph Street Brooklyn, NY ACT Project No.: 7610-BkNY </p>							
Sample ID Sample Date	UUSCO ¹	Standard RRSCO ²	CSCO ³	SB-1 (2-4) 2/11/14	SB-2 (2.5-3.5) 2/11/14	SB-3 (14-16) 2/11/14	SB-4 (1-3) 2/12/14
1,1,1-Trichloroethane	680	100,000	500,000	<13	<13	110	2,400
1,1,2,2-Tetrachloroethane	NS	NS	NS	<13	<13	<11	<14
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	NS	NS	<13	<13	39	<14
1,1,2-Trichloroethane	NS	NS	NS	<13	<13	<11	<14
1,1-Dichloroethane	270	26,000	240,000	<13	<13	12	<14
1,1-Dichloroethene	330	100,000	500,000	<13	<13	<11	<14
1,2,4-Trichlorobenzene	NS	NS	NS	<13	<13	<11	<14
1,2-Dibromo-3-chloropropane	NS	NS	NS	<13	<13	<11	<14
1,2-Dibromoethane	NS	NS	NS	<13	<13	<11	<14
1,2-Dichlorobenzene	1,100	100,000	500,000	<13	<13	37	<14
1,2-Dichloroethane	20	3,100	30,000	<13	<13	<11	<14
1,2-Dichloropropane	NS	NS	NS	<13	<13	<11	<14
1,3-Dichlorobenzene	2,400	49,000	280,000	<13	<13	<11	<14
1,4-Dichlorobenzene	1,800	13,000	130,000	<13	<13	<11	<14
2-Butanone	120	100,000	500,000	<13	<13	15	<14
2-Hexanone	NS	NS	NS	<13	<13	<11	<14
4-Methyl-2-pentanone	NS	NS	NS	<13	<13	<11	<14
Acetone	50	100,000	500,000	20	<13	72	<14
Benzene	60	4,800	44,000	<13	<13	<11	<14
Bromodichloromethane	NS	NS	NS	<13	<13	<11	<14
Bromoform	NS	NS	NS	<13	<13	<11	<14
Bromomethane	NS	NS	NS	<13	<13	<11	<14
Carbon disulfide	NS	NS	NS	<13	<13	<11	<14
Carbon tetrachloride	760	2,400	22,000	<13	<13	<11	<14
Chlorobenzene	1,100	100,000	500,000	<13	<13	47	<14
Chloroethane	NS	NS	NS	<13	<13	<11	<14
Chloroform	370	49,000	350,000	<13	<13	<11	18
Chloromethane	NS	NS	NS	<13	<13	<11	<14
cis-1,2-Dichloroethene	250	100,000	500,000	<13	57	3,300	76
cis-1,3-Dichloropropene	NS	NS	NS	<13	<13	<11	<14
Cyclohexane	NS	NS	NS	<13	<13	<11	<14
Dibromochloromethane	NS	NS	NS	<13	<13	<11	<14
Dichlorodifluoromethane	NS	NS	NS	<13	<13	<11	<14
Ethylbenzene	1,000	41,000	390,000	<13	<13	<11	<14
Isopropylbenzene	NS	NS	NS	<13	<13	<11	<14
Methyl Acetate	NS	NS	NS	<13	<13	<11	<14
Methyl tert-butyl ether	930	100,000	500,000	<13	<13	<11	<14
Methylcyclohexane	NS	NS	NS	<13	<13	<11	<14
Methylene chloride	50	100,000	500,000	<13	<13	<11	<14
Styrene	NS	NS	NS	<13	<13	<11	<14
Tetrachloroethene	1,300	19,000	150,000	63	990	170,000	260,000
Toluene	700	100,000	500,000	<13	<13	<11	<14
trans-1,2-Dichloroethene	NS	NS	NS	<13	<13	21	<14
trans-1,3-Dichloropropene	NS	NS	NS	<13	<13	<11	<14
Trichloroethene	470	21,000	200,000	33	130	5,000	52,000
Trichlorofluoromethane	NS	NS	NS	<13	<13	<11	<14
Vinyl chloride	20	900	13,000	<13	<13	120	<14
Xylenes (Total)	260	100,000	500,000	<13	<13	<11	<14

¹ Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
² Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
³ Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
 Bolded values signify detection above method detection limit
 Highlighted values signify exceedance of regulatory standard
 NR = No Recovery
 NS = No Standard

<p align="center"> Table 2 Semi Volatile Organic Compounds in Soil (ug/kg-dry) EPA Method 8270 255 Randolph Street Brooklyn, NY ACT Project No.: 7610-BkNY </p>							
Sample ID Sample Date	UUSCO ¹	Standard RRSCO ²	CSCO ³	SB-1 (2-4) 2/11/14	SB-2 (2.5-3.5) 2/11/14	SB-3 (14-16) 2/11/14	SB-4 (1-3) 2/12/14
1,1'-Biphenyl	NS	NS	NS	<340	<390	<390	<340
2,2'-oxybis(1-chloropropane)	NS	NS	NS	<340	<390	<390	<340
2,4,5-Trichlorophenol	NS	NS	NS	<860	<980	<980	<860
2,4,6-Trichlorophenol	NS	NS	NS	<340	<390	<390	<340
2,4-Dichlorophenol	NS	NS	NS	<340	<390	<390	<340
2,4-Dimethylphenol	NS	NS	NS	<340	<390	<390	<340
2,4-Dinitrophenol	NS	NS	NS	<860	<980	<980	<860
2,4-Dinitrotoluene	NS	NS	NS	<340	<390	<390	<340
2,6-Dinitrotoluene	NS	NS	NS	<340	<390	<390	<340
2-Chloronaphthalene	NS	NS	NS	<340	<390	<390	<340
2-Chlorophenol	NS	NS	NS	<340	<390	<390	<340
2-Methylnaphthalene	NS	NS	NS	<340	<390	<390	<340
2-Methylphenol	330	100,000	500,000	<340	<390	<390	<340
2-Nitroaniline	NS	NS	NS	<860	<980	<980	<860
2-Nitrophenol	NS	NS	NS	<340	<390	<390	<340
3,3'-Dichlorobenzidine	NS	NS	NS	<340	<390	<390	<340
3-Nitroaniline	NS	NS	NS	<860	<980	<980	<860
4,6-Dinitro-2-methylphenol	NS	NS	NS	<860	<980	<980	<860
4-Bromophenyl-phenylether	NS	NS	NS	<340	<390	<390	<340
4-Chloro-3-methylphenol	NS	NS	NS	<340	<390	<390	<340
4-Chloroaniline	NS	NS	NS	<340	<390	<390	<340
4-Chlorophenyl phenyl ether	NS	NS	NS	<340	<390	<390	<340
4-Methylphenol	NS	NS	NS	<340	<390	<390	<340
4-Nitroaniline	NS	NS	NS	<860	<980	<980	<860
4-Nitrophenol	NS	NS	NS	<860	<980	<980	<860
Acenaphthene	20,000	100,000	500,000	<340	<390	<390	<340
Acenaphthylene	100,000	100,000	500,000	<340	<390	<390	<340
Acetophenone	NS	NS	NS	<340	<390	<390	<340
Anthracene	100,000	100,000	500,000	<340	<390	<390	<340
Atrazine	NS	NS	NS	<340	<390	<390	<340
Benzaldehyde	NS	NS	NS	<340	<390	<390	<340
Benzo(a)anthracene	1,000	1,000	5,600	<340	<390	<390	<340
Benzo(a)pyrene	1,000	1,000	1,000	<340	<390	<390	<340
Benzo(b)fluoranthene	1,000	1,000	5,600	<340	<390	<390	<340
Benzo(g,h,i)perylene	100,000	100,000	500,000	<340	<390	<390	<340
Benzo(k)fluoranthene	800	3,900	56,000	<340	<390	<390	<340
Bis(2-chloroethoxy)methane	NS	NS	NS	<340	<390	<390	<340
Bis(2-chloroethyl)ether	NS	NS	NS	<340	<390	<390	<340
Bis(2-ethylhexyl)phthalate	NS	NS	NS	<340	<390	<390	<340
Butyl benzyl phthalate	NS	NS	NS	<340	<390	<390	<340
Caprolactam	NS	NS	NS	<340	<390	<390	<340
Carbazole	NS	NS	NS	<340	<390	<390	<340
Chrysene	1,000	3,900	56,000	<340	<390	<390	<340
Dibenzo(a,h)anthracene	330	330	560	<340	<390	<390	<340
Dibenzofuran	NS	NS	NS	<340	<390	<390	<340
Diethyl phthalate	NS	NS	NS	<340	<390	<390	<340
Dimethyl phthalate	NS	NS	NS	<340	<390	<390	<340
Di-n-butyl phthalate	NS	NS	NS	<340	<390	<390	<340
Di-n-octyl phthalate	NS	NS	NS	<340	<390	<390	<340
Fluoranthene	100,000	100,000	500,000	<340	<390	<390	<340
Fluorene	30,000	100,000	500,000	<340	<390	<390	<340
Hexachlorobenzene	NS	NS	NS	<340	<390	<390	<340
Hexachlorobutadiene	NS	NS	NS	<340	<390	<390	<340
Hexachlorocyclopentadiene	NS	NS	NS	<340	<390	<390	<340
Hexachloroethane	NS	NS	NS	<340	<390	<390	<340
Indeno(1,2,3-c,d)pyrene	500	500	5,600	<340	<390	<390	<340
Isophorone	NS	NS	NS	<340	<390	<390	<340
Naphthalene	12,000	100,000	500,000	<340	<390	<390	<340
Nitrobenzene	NS	NS	NS	<340	<390	<390	<340
N-Nitrosodi-n-propylamine	NS	NS	NS	<340	<390	<390	<340
N-Nitrosodiphenylamine	NS	NS	NS	<340	<390	<390	<340
Pentachlorophenol	800	6,700	6,700	<860	<980	<980	<860
Phenanthrene	100,000	100,000	500,000	<340	<390	<390	<340
Phenol	330	100,000	500,000	<340	<390	<390	<340
Pyrene	100,000	100,000	500,000	<340	<390	<390	600

¹ Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006
² Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
³ Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006
 Bolded values signify detection above method detection limit
 Highlighted values signify exceedance of regulatory guidance
 NR = No Recovery
 NS = No Standard

Table 3
Metals in Soil (mg/kg-dry)
EPA Method 6010
255 Randolph Street
Brooklyn, NY

ACT Project No.: 7610-BkNY

Sample ID Sample Date	UUSCO ¹	Standard RRSCO ²	CSCO ³	SB-1 (2-4) 2/11/14	SB-2 (2.5-3.5) 2/11/14	SB-3 (14-16) 2/11/14	SB-4 (1-3) 2/12/14
Aluminum	NS	NS	NS	434	7,520	5,040	3,410
Antimony	NS	NS	NS	<6.25	<7.05	<7.05	<6.20
Arsenic	13	16	16	<1.04	2.30	<1.18	2.74
Barium	350	400	400	<20.8	49.0	33.5	<20.7
Beryllium	7.2	72	590	<0.52	<0.59	<0.59	<0.52
Cadmium	2.5	4.3	9.3	<0.52	0.74	0.93	0.67
Calcium	NS	NS	NS	227	650	503	74,800
Chromium	30	180	1,500	6.09	10.9	10.3	8.12
Cobalt	NS	NS	NS	<5.21	<5.88	<5.88	<5.16
Copper	50	270	270	2.59	29.8	8.44	25.5
Iron	NS	NS	NS	2,930	13,100	13,000	9,200
Lead	63	400	1,000	60.1	67.5	61.3	16.7
Magnesium	NS	NS	NS	60.9	1,300	1,190	39,800
Manganese	1,600	2,000	10,000	7.55	105	90.3	150
Mercury	0.18	0.81	2.8	0.31	0.87	1.06	<0.20
Nickel	30	310	310	<4.17	6.32	<4.70	6.75
Potassium	NS	NS	NS	406	361	390	791
Selenium	3.9	180	1,500	0.91	2.92	3.10	1.90
Silver	2	180	1,500	<1.04	<1.18	<1.18	<1.03
Sodium	NS	NS	NS	61.4	65.1	36.9	343
Thallium	NS	NS	NS	<1.04	<1.18	<1.18	<1.03
Vanadium	NS	NS	NS	<5.21	16.9	15.2	26.4
Zinc	109	10,000	10,000	3.61	25.1	36.0	30.0

¹ Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006

² Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006

³ Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006

Bolded values signify detection above method detection limit

Highlighted values signify exceedance of regulatory standard

NR = No Recovery

NS = No Standard

Table 4
PCBs and Pesticides in Soil (ug/kg-dry)
EPA Method 8081/8082
255 Randolph Street
Brooklyn, NY
ACT Project No.: 7610-BkNY

Sample ID Sample Date	UUSCO ¹	Standard RRSCO ²	CSCO ³	SB-1 (2-4) 2/11/14	SB-2 (2.5-3.5) 2/11/14	SB-3 (14-16) 2/11/14	SB-4 (1-3) 2/12/14
4,4'-DDD	3.3	2,600	92,000	<3.4	<3.9	<3.9	<3.4
4,4'-DDE	3.3	1,800	62,000	<3.4	<3.9	<3.9	<3.4
4,4'-DDT	3.3	1,700	47,000	<3.4	<3.9	<3.9	<3.4
Aldrin	5	19	680	<1.8	<2.0	<2.0	<1.8
alpha-BHC	20	97	3,400	<1.8	<2.0	<2.0	<1.8
alpha-Chlordane	94	4,200	24,000	<1.8	<2.0	<2.0	<1.8
Aroclor 1016	100	1,000	1,000	<34	<39	<39	<34
Aroclor 1221	100	1,000	1,000	<70	<79	<79	<69
Aroclor 1232	100	1,000	1,000	<34	<39	<39	<34
Aroclor 1242	100	1,000	1,000	<34	<39	<39	<34
Aroclor 1248	100	1,000	1,000	<34	<39	<39	<34
Aroclor 1254	100	1,000	1,000	<34	<39	<39	<34
Aroclor 1260	100	1,000	1,000	<34	<39	<39	<34
beta-BHC	36	72	3,000	<1.8	<2.0	<2.0	<1.8
delta-BHC	40	100,000	500,000	<1.8	<2.0	<2.0	<1.8
Dieldrin	5	39	1,400	<3.4	<3.9	<3.9	<3.4
Endosulfan I	2,400	4,800	200,000	<1.8	<2.0	<2.0	<1.8
Endosulfan II	2,400	4,800	200,000	<3.4	<3.9	<3.9	<3.4
Endosulfan sulfate	2,400	4,800	200,000	<3.4	<3.9	<3.9	<3.4
Endrin	14	2,200	89,000	<3.4	<3.9	<3.9	<3.4
Endrin aldehyde	NS	NS	NS	<3.4	<3.9	<3.9	<3.4
Endrin ketone	NS	NS	NS	<3.4	<3.9	<3.9	<3.4
gamma-BHC	100	280	9,200	<1.8	<2.0	<2.0	<1.8
gamma-Chlordane	NS	NS	NS	<1.8	<2.0	<2.0	<1.8
Heptachlor	42	420	15,000	<1.8	<2.0	<2.0	<1.8
Heptachlor epoxide	NS	NS	NS	<1.8	<2.0	<2.0	<1.8
Methoxychlor	NS	NS	NS	<18	<20	<20	<18
Toxaphene	NS	NS	NS	<180	<200	<200	<180

¹ Unrestricted Use Soil Cleanup Objectives, Table 375-6.8(a), 6 NYCRR 375, NYSDEC 2006

² Restricted Residential Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006

³ Commercial Soil Cleanup Objectives, Table 375-6.8(b), 6 NYCRR 375, NYSDEC 2006

Bolded values signify detection above method detection limit

Highlighted values signify exceedance of regulatory standard

NR = No Recovery

NS = No Standard

Table 5
Volatile Organic Compounds in Groundwater (ug/l)
EPA Method 8260
255 Randolph Street
Brooklyn, NY
ACT Project No.: 7610-BKNY

Sample ID Sample Date	Standard ¹	TW-1 2/11/14	TW-2 2/11/14	TW-3 2/11/14	TW-4 2/12/14
1,1,1-Trichloroethane	5	<10	<10	53	<10
1,1,2,2-Tetrachloroethane	0.2	<10	<10	<10	<10
1,1,2-Trichloro-1,2,2-trifluoroethane	NS	<10	<10	<10	<10
1,1,2-Trichloroethane	1	<10	<10	<10	<10
1,1-Dichloroethane	5	<10	<10	26	<10
1,1-Dichloroethene	0.7	<10	<10	<10	<10
1,2,4-Trichlorobenzene	5	<10	<10	<10	<10
1,2-Dibromo-3-chloropropane	0.04	<10	<10	<10	<10
1,2-Dibromoethane	NS	<10	<10	<10	<10
1,2-Dichlorobenzene	2	<10	<10	<10	<10
1,2-Dichloroethane	0.6	<10	<10	<10	<10
1,2-Dichloropropane	1	<10	<10	<10	<10
1,3-Dichlorobenzene	3	<10	<10	<10	<10
1,4-Dichlorobenzene	3	<10	<10	<10	<10
2-Butanone	50	<10	<10	<10	<10
2-Hexanone	50	<10	<10	<10	<10
4-Methyl-2-pentanone	NS	<10	<10	<10	<10
Acetone	50	<10	<10	13	<10
Benzene	0.7	<10	<10	<10	<10
Bromodichloromethane	50	<10	<10	<10	<10
Bromoform	50	<10	<10	<10	<10
Bromomethane	5	<10	<10	<10	<10
Carbon disulfide	NS	<10	<10	<10	<10
Carbon tetrachloride	5	<10	<10	<10	<10
Chlorobenzene	5	<10	<10	<10	<10
Chloroethane	5	<10	<10	<10	<10
Chloroform	7	<10	<10	12	<10
Chloromethane	NS	<10	<10	<10	<10
cis-1,2-Dichloroethene	5	<10	820	1,100	<10
cis-1,3-Dichloropropene	0.4	<10	<10	<10	<10
Cyclohexane	NS	<10	<10	<10	<10
Dibromochloromethane	50	<10	<10	<10	<10
Dichlorodifluoromethane	5	<10	<10	<10	<10
Ethylbenzene	5	<10	<10	<10	<10
Isopropylbenzene	5	<10	<10	<10	<10
Methyl Acetate	NS	<10	<10	<10	<10
Methyl tert-butyl ether	10	<10	<10	<10	<10
Methylcyclohexane	NS	<10	<10	<10	<10
Methylene chloride	5	<10	<10	<10	<10
Styrene	50	<10	<10	<10	<10
Tetrachloroethene	5	43	1,100	2,100	67
Toluene	5	<10	<10	<10	<10
trans-1,2-Dichloroethene	5	<10	17	17	<10
trans-1,3-Dichloropropene	NS	<10	<10	<10	<10
Trichloroethene	5	<10	180	490	20
Trichlorofluoromethane	5	<10	<10	<10	<10
Vinyl chloride	2	<10	25	170	<10
Xylene (total)	15	<10	<10	<10	<10

¹ NYS DEC TOGS 1.1.1, June, 1998

Bolded values signify detection above method detection limit

Highlighted values signify exceedance of regulatory guidance

NS = No Standard

<p align="center">Table 6 Semi Volatile Organic Compounds in Groundwater (ug/l) EPA Method 8270 255 Randolph Street Brooklyn, NY ACT Project No.:7610-BKNY</p>			
Sample ID	Standard ¹	TW-1	TW-4
Sample Date		2/11/14	2/12/14
1,1'-Biphenyl	5	<10	<10
2,2'-oxybis(1-chloropropane)	NS	<10	<10
2,4,5-Trichlorophenol	NS	<25	<25
2,4,6-Trichlorophenol	NS	<10	<10
2,4-Dichlorophenol	0.3	<10	<10
2,4-Dimethylphenol	50	<10	<10
2,4-Dinitrophenol	10	<25	<25
2,4-Dinitrotoluene	5	<10	<10
2,6-Dinitrotoluene	0.07	<10	<10
2-Chloronaphthalene	10	<10	<10
2-Chlorophenol	NS	<10	<10
2-Methylnaphthalene	42	<10	<10
2-Methylphenol	NS	<10	<10
2-Nitroaniline	5	<25	<25
2-Nitrophenol	NS	<10	<10
3,3'-Dichlorobenzidine	5	<10	<10
3-Nitroaniline	5	<25	<25
4,6-Dinitro-2-methylphenol	NS	<25	<25
4-Bromophenyl-phenylether	NS	<10	<10
4-Chloro-3-methylphenol	NS	<10	<10
4-Chloroaniline	5	<10	<10
4-Chlorophenyl phenyl ether	NS	<10	<10
4-Methylphenol	NS	<10	<10
4-Nitroaniline	5	<25	<25
4-Nitrophenol	NS	<25	<25
Acenaphthene	20	<10	<10
Acenaphthylene	NS	<10	<10
Acetophenone	NS	<10	<10
Anthracene	50	<10	<10
Atrazine	7.5	<10	<10
Benzaldehyde	NS	<10	<10
Benzo(a)anthracene	NS	<10	<10
Benzo(a)pyrene	NS	<10	<10
Benzo(b)fluoranthene	0.002	<10	<10
Benzo(g,h,i)perylene	NS	<10	<10
Benzo(k)fluoranthene	0.002	<10	<10
Bis(2-chloroethoxy)methane	5	<10	<10
Bis(2-chloroethyl)ether	1	<10	<10
Bis(2-ethylhexyl)phthalate	5	<10	<10
Butyl benzyl phthalate	NS	<10	<10
Caprolactam	NS	<10	<10
Carbazole	NS	<10	<10
Chrysene	0.002	<10	<10
Dibenzo(a,h)anthracene	NS	<10	<10
Dibenzofuran	NS	<10	<10
Diethyl phthalate	50	<10	<10
Dimethyl phthalate	50	<10	<10
Di-n-butyl phthalate	50	<10	<10
Di-n-octyl phthalate	50	<10	<10
Fluoranthene	50	<10	<10
Fluorene	50	<10	<10
Hexachlorobenzene	0.04	<10	<10
Hexachlorobutadiene	0.5	<10	<10
Hexachlorocyclopentadiene	5	<10	<10
Hexachloroethane	5	<10	<10
Indeno(1,2,3-c,d)pyrene	0.002	<10	<10
Isophorone	50	<10	<10
Naphthalene	10	<10	<10
Nitrobenzene	0.4	<10	<10
N-Nitrosodi-n-propylamine	NS	<10	<10
N-Nitrosodiphenylamine	50	<10	<10
Pentachlorophenol	NS	<25	<25
Phenanthrene	50	<10	<10
Phenol	NS	<10	<10
Pyrene	50	<10	<10
¹ NYS DEC TOGS 1.1.1, June, 1998 Bolded values signify detection above method detection limit Highlighted values signify exceedance of regulatory guidance NS = No Standard			

Table 7 Total and Dissolved Metals in Groundwater (ug/l) EPA Method 6010 and 7471 255 Randolph Street Brooklyn, NY ACT Project No.: 7610-BKNY			
Sample ID	Standard ¹	TW-1	TW-4
Sample Date		2/11/14	2/12/14
Dissolved			
Aluminum	100	<0.20	<0.20
Antimony	3	<60.0	<60.0
Arsenic	50	<10.0	<10.0
Barium	1,000	<0.20	<0.20
Beryllium	3	<5.00	<5.00
Cadmium	5	<5.00	<5.00
Calcium	NS	73.7	66.0
Chromium	50	<0.01	<0.01
Cobalt	5	<0.05	<0.05
Copper	200	<0.02	<0.02
Iron	300	1.59	0.65
Lead	50	26.8	24.3
Magnesium	35,000	24.6	19.6
Manganese	300	0.10	0.23
Mercury	0.7	<0.2	<0.2
Nickel	100	<0.04	<0.04
Potassium	NS	4.76	5.49
Selenium	10	<5.00	<5.00
Silver	NS	<0.01	<0.01
Sodium	20,000	72.9	95.9
Thallium	8	<10.0	<10.0
Vanadium	14	<0.05	<0.05
Zinc	66	0.04	<0.02
¹ NYS DEC TOGS 1.1.1, June, 1998 Bolded values signify detection above method detection limit Highlighted values signify exceedance of regulatory guidance in dissolved samples NS = No Standard			

<p align="center">Table 8</p> <p align="center">PCBs and Pesticides in Groundwater (ug/l)</p> <p align="center">EPA Method 8081/8082</p> <p align="center">255 Randolph Street</p> <p align="center">Brooklyn, NY</p> <p align="center">ACT Project No.: 7610-BKNY</p>			
Sample ID Sample Date	Standard ¹	TW-1 2/11/14	TW-4 2/12/14
4,4'-DDD	2.9	<0.10	<0.10
4,4'-DDE	2.1	<0.10	<0.10
4,4'-DDT	2.1	<0.10	<0.10
Aldrin	0.041	<0.050	<0.050
alpha-BHC	0.11	<0.050	<0.050
alpha-Chlordane	0.05	<0.050	<0.050
Aroclor 1016	10	<1.0	<1.0
Aroclor 1221	10	<2.0	<2.0
Aroclor 1232	10	<1.0	<1.0
Aroclor 1242	10	<1.0	<1.0
Aroclor 1248	10	<1.0	<1.0
Aroclor 1254	10	<1.0	<1.0
Aroclor 1260	10	<1.0	<1.0
beta-BHC	0.2	<0.050	<0.050
delta-BHC	0.3	<0.050	<0.050
Dieldrin	0.044	<0.10	<0.10
Endosulfan I	0.9	<0.050	<0.050
Endosulfan II	0.9	<0.10	<0.10
Endosulfan sulfate	1	<0.10	<0.10
Endrin	0.1	<0.10	<0.10
Endrin aldehyde	NS	<0.10	<0.10
Endrin ketone	NS	<0.10	<0.10
gamma-BHC	0.06	<0.050	<0.050
gamma-Chlordane	0.05	<0.050	<0.050
Heptachlor	0.1	<0.050	<0.050
Heptachlor epoxide	0.02	<0.050	<0.050
Methoxychlor	NS	<0.50	<0.50
Toxaphene	0.06	<5.0	<5.0
<p>¹ NYS DEC TOGS 1.1.1, June, 1998</p> <p>Bolded values signify detection above method detection limit</p> <p>Highlighted values signify exceedance of regulatory guidance in dissolved samples</p> <p>NS = No Standard</p>			

APPENDIX A
PREVIOUS ENVIRONMENTAL REPORTS



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**255 Randolph Street
Brooklyn, NY 11237
Tax Map #: Block 2979, Lot 45**

ACT Project #: 7610-BKNY

January 24, 2014

Prepared for:

**Junis Yeung
Cathay Bank
41-48 Main Street
Flushing, NY 11355**

Prepared by:

**Advanced Cleanup Technologies, Inc.
960 South Broadway, #100
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1.0 EXECUTIVE SUMMARY

Property Address: 255 Randolph Street, Brooklyn, NY 11237.

Property Usage: A commercial warehouse.

Property Description: The subject property consists of a one- and two-story commercial warehouse with a partial basement. The building is occupied by Handy Lee Enterprises. The building has a footprint of approximately 17,800 square feet, and the property is approximately 18,600 square feet in area.

Subject	Acceptable	Routine Solution	Additional Study	Estimated Cost
Site History	No		Yes	\$10,000.00
Database Review	X			
Local Records Review	X			
Visual Observations	No		Yes	See above
Adjacent Properties	X			
USTs and ASTs	No		Yes	See above
PCBs	X			
Asbestos	X			
Radon	X			
Lead-Based Paint	X			

Advanced Cleanup Technologies, Inc. (ACT) has performed the Phase I Environmental Site Assessment in conformance with the scope of limitations of ASTM Practice E 1527-05 of 255 Randolph Street, Brooklyn, NY 11237, the “subject property.” Any exceptions to or deletions from this practice are described in Section 2.2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except for the following:

- The historical industrial use of the subject property (Sections 5.2, 5.4, 6.3, and 6.4)
- A suspect underground storage tank (Section 6.7)

No historical recognized environmental conditions were identified at the subject property. An

historical recognized environmental condition is an environmental condition that in the past would have been considered a recognized environmental condition.

No *de minimis* conditions were identified at the subject property. A *de minimis* condition is one that generally does not present a material risk of harm to public health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies (excluding local asbestos and lead situations).

2.0 INTRODUCTION

Pursuant to the request of Cathay Bank, as our client, ACT has conducted a Phase I Environmental Site Assessment (ESA) of 255 Randolph Street, Brooklyn, NY 11237. The Assessment was performed to meet or surpass the industry standard established by ASTM's Standard Practice for Environmental Site Assessments (E 1527-05). This ESA was conducted in accordance with and subject to the proposal dated December 30, 2013.

2.1 Purpose

The purpose of this report is to assess the subject property for evidence of Recognized Environmental Conditions (RECs) in accordance with the provisions of ASTM Standard E 1527-05. As defined by the ASTM, the term recognized environmental condition means "the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or onto the ground, ground water, or surface water of the property." A material threat is "a physically observable or obvious threat which is reasonably likely to lead to a release that is threatening and might result in impact to public health or the environment." A REC may include hazardous substances or petroleum products even under conditions in compliance with laws.

2.2 Detailed Scope of Services

The Phase I ESA includes a visual inspection of the subject property, improvements, and surrounding properties to identify potential recognized environmental conditions. The adjacent properties were viewed from the subject property and roadways to determine potential sources of contamination or environmental impacts that could migrate to the subject property.

Research into historical uses of the property and surrounding land and a review of regulatory agency files and databases pertaining to the property and surrounding properties were performed.

Interviews with property representatives regarding past and present conditions and interviews with local government officials were performed to determine if environmental issues exist at the subject property.

The Phase I ESA also contains non-ASTM items, including a limited visual screening for suspect asbestos-containing materials and lead based paint and a review of regulatory agency documents regarding lead in drinking water and radon in the vicinity of the subject property.

2.3 Significant Assumptions

Information and records provided by the user, outside vendors, and regulatory agencies consulted by ACT are assumed to be correct and complete.

2.4 Limitations and Exceptions

This practice constitutes “All Appropriate Inquiry” (AAI) into the previous ownership and uses of the property consistent with good commercial or customary practice in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601). Data gaps may occur in the event that a portion of the AAI practice cannot be fully performed as per ASTM E 1527-05, despite the good faith effort of the environmental professional. This practice does not address local or state environmental assessment obligations that may be applicable to the property.

The purpose of this ESA is to assess the subject property with respect to the presence of hazardous substances and/or petroleum products in accordance with provisions of ASTM Standard E 1527-05. This practice is intended to permit the user, which may be a perspective purchaser or tenant, an owner, a lender or a property manager, to satisfy requirements to qualify as an innocent land owner, contiguous property owner, or bona fide prospective purchaser, hereinafter known as the Landowner Liability Protections (LLPs).

The innocent landowner defense applies to individuals who were not aware of contamination at a property despite completion of AAI at the time of purchase; government entities that acquired a property via escheat, eminent domain, or involuntary transfer or acquisition; and individuals who inherited a property.

The contiguous property owner liability protection applies to owners who have completed AAI prior to purchase and were not aware of a contiguous property not owned by them that has or may have impacted their property. Knowledge of impact from a contiguous property exempts the owner from the contiguous property owner liability.

The bona fide prospective purchaser liability protection signifies that the purchaser made all appropriate inquiries into the subject property prior to its purchase.

This Phase I ESA has been prepared to assess the potential environmental liabilities at the subject site with respect to data that Advanced Cleanup Technologies, Inc. has accumulated during the Phase I ESA. The conclusions presented in this report are based solely on the observations of the site at the time of the assessment. Data provided, including information provided by others, were utilized in assessing the site conditions. The accuracy of this Phase I ESA is subject to the accuracy of the information provided. Advanced Cleanup Technologies, Inc. is not responsible for areas not seen or information not collected.

This Phase I ESA was performed at the request of Cathay Bank in accordance with ASTM E 1527-05. The report has been prepared for the sole use of Cathay Bank; no other party may use the report without written consent from ACT and Cathay Bank.

2.5 Special Terms and Conditions

No special terms or condition are in addition to the scope outlined in Section 2.2 of this Phase I ESA.

2.6 User Responsibilities

This practice does not address the continuing obligations of the user, including protection of activity and use limitations (AULs), which are legal or physical use limitations on use of or access to a site that may include institutional or engineering controls (physical modifications to a subject property to reduce or prevent contact with known subsurface contamination at a subject property) or the duty to take reasonable steps to prevent future releases, or the duty to comply with legally required release reporting obligations.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The address of the subject property is 255 Randolph Street, Brooklyn, NY 11237. The New York City tax map identification number is Block 2979, Lot 45.

3.2 Site and Vicinity Characteristics

The subject property is located in an industrial area in the northern portion of the borough of Brooklyn in New York City. The immediate vicinity of the subject property contains industrial buildings. The subject property is located approximately 1,270 feet south of Newtown Creek and 2.5 miles east of the East River.

3.3 Current Use of the Property

The subject property currently contains a one- and two-story commercial warehouse occupied by Handy Lee Enterprises Inc. The current use does not appear to be impacting the environmental quality of the subject property.

3.4 Description of Structures, Roads and Other Improvements

The subject property is located along the northern side of Randolph Street. Electric, water, and natural gas services enter the property underground from the south. All utility meters are located in the utility room. The building is heated by overhead natural gas heaters located in the warehouse. Hot water is supplied to the building by an electric heating tank located in the warehouse bathroom. The building is connected to the municipal sewer system.

3.5 Current Use of Adjoining Properties

The exterior conditions of adjacent properties were viewed from the subject property and adjacent roadways.

North:	A two-story industrial warehouse.
South:	A two-story industrial building occupied by ACM Fan Inc.
East:	A two-story industrial building occupied by PCF Publishers Circulation Fulfillment Inc.
West:	A one-story industrial building occupied by R Strangs Electrical Construction Inc

The adjacent properties do not appear to be impacting the environmental quality of the subject property.

4.0 USER PROVIDED INFORMATION

A User Questionnaire was provided to the real estate representatives of the subject property. The completed User Questionnaire has not been provided to ACT at the time of this report.

4.1 Environmental Liens

An environmental lien search is an inquiry into the existence of environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local laws.

An environmental lien search was not included in the scope of work of this assessment and therefore was not performed. However, if the findings of a lien search performed by any other party reveal the presence of an environmental related lien on the subject property, this information should be forwarded to ACT for review, and any significant findings will be added to this assessment as an addendum.

5.0 RECORDS REVIEW

5.1 Standard Environmental Records Sources

In an effort to determine the potential impact from hazardous waste activities or petroleum products at the subject property, adjacent properties and surrounding area, a review of database information on waste sites within one mile of the subject property was conducted. The database report information was provided to ACT by Environmental Data Resources, Inc. on December 31, 2013.

The review included a search of the following Federal, United States Environmental Protection Agency (USEPA), and New York State Department of Environmental Conservation (NYSDEC) databases:

- USEPA National Priorities List (NPL) and Delisted NPL Sites.
- USEPA Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS Non-NFRAP) and CERCLIS No Further Remedial Action Planned (CERCLIS NFRAP) Sites.
- NYDEC listing of Inactive Hazardous Waste Disposal and Registry Qualifying Sites or State equivalent NPL and CERCLIS Sites.
- USEPA and NYSDEC Resource Conservation and Recovery Act (RCRA) Hazardous Waste Treatment Storage and Disposal (TSD) facilities, RCRA corrective action activity (CORRACTS) sites, and Hazardous Waste generator/transporter facilities.
- USEPA and NYSDEC Brownfield and Voluntary Cleanup Sites.
- NYSDEC Solid Waste Management Facilities Database.
- NYSDEC listing of Leaking Underground Storage Tanks (LUSTs) and Spills List.
- NYSDEC listing of Petroleum Bulk Storage Facilities, Major Oil Storage and Chemical Bulk Storage Facilities.
- USEPA Emergency Response and Notification System (ERNS).
- USEPA and NYSDEC Institutional Controls/Engineering Controls (IC/EC).

The NPL and CERCLIS databases are maintained by the USEPA and contain records for each of the hazardous waste facilities nominated or chosen for cleanup under Superfund. The NPL database was searched for sites within a radius of 1 mile from the subject property. The subject property is not identified on the NPL database. No NPL sites are identified within 1 mile of the subject property.

The Delisted NPL database was searched for sites within a radius of ½ mile from the subject property. The subject property is not identified on the Delisted NPL database. No Delisted NPL sites are identified within ½ mile of the subject property.

The CERCLIS database was searched for sites within a radius of ½ mile from the subject property. The subject property is not identified on the CERCLIS Non-NFRAP database. No CERCLIS Non-NFRAP sites are identified in the database within ½ mile of the subject property.

The CERCLIS-NFRAP database was searched for sites within a radius of ½ mile from the subject property. The subject property is not identified on the CERCLIS-NFRAP database. One CERCLIS-NFRAP site is identified in the database within ½ mile of the subject property. The site, Technical Metal Finishers at 214 Starr Street, is located 0.402 miles south of the subject property. The site is listed with EPA ID NYD980780894. Due to the non-proximate location of the site, it is unlikely to affect the environmental quality of the subject property.

The RCRA database includes listings of properties that are undergoing Corrective Action. The subject property is not listed in the Corrective Action database. No RCRA Corrective Action sites are identified within 1 mile of the subject property.

RCRA database includes listings of properties that are considered Hazardous Waste Treatment, Storage or Disposal (TSD) facilities. The subject property is not listed in the RCRA TSD database. No RCRA TSD sites are identified within ½ mile of the subject property.

The RCRA database includes listings of properties that are considered Hazardous Waste Generators or Transporters. The subject property is not listed in the RCRA Hazardous Waste Generator/Transporter database. Thirteen RCRA Hazardous Waste Generator/Transporter sites are identified within ¼ mile of the subject property. The closest sites, Rhoda Uretsky Trust and Acme American Group Inc. at 99 Scott Avenue, is located 0.042 miles southwest of the subject property. Rhoda Uretsky Trust is listed with EPA ID NYR000169698 and is identified as a Large Quantity Generator, generating 1,000 kg or more of hazardous waste per month. The wastes are identified as lead. Acme Association Group Inc. is listed with EPA ID NYN008023699 and is identified as a Conditionally Exempt Small Quantity Generator, generating less than 100 kg of hazardous waste per month. Due to the non-proximate locations and lower elevation of the sites, they are unlikely to affect the environmental quality of the subject property.

The NYDEC publication of Inactive Hazardous Waste Disposal and Registry Qualifying Sites in New York State contains a listing of all properties and facilities in New York state that have been identified as containing toxic or hazardous wastes and/or contamination in various forms. The subject

property is not identified in the database. Five Inactive Hazardous Waste Disposal Sites or Registry Qualifying Sites are identified in the database within 1 mile of the subject property. The closest site, Varick Avenue at 165 Varick Avenue, is located 0.333 miles west of the subject property. The site contains contaminated soil and groundwater. Due to the non-proximate location and lower elevation of the site, it is unlikely to affect the environmental quality of the subject property.

The NYDEC Solid Waste Landfill Facility database (SWLF) includes properties that are active solid waste disposal sites. The SWLF database was searched for sites within a radius of ½ mile of the subject property. The subject property is not identified on the SWLF database. Twenty SWLF sites are identified in the database within ½ mile of the subject property. The closest site, BFI – Allied at 72 Scott Avenue, is located 0.070 miles south-southwest of the subject property. The site is an inactive transfer station. Due to the non-proximate location of the site, it is unlikely to affect the environmental quality of the subject property.

The NYDEC publication of Brownfield/Voluntary Cleanup Sites in New York State contains a listing of all properties and facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. The subject property is not identified in the database. Three Brownfield/VCP sites are identified in the database within ½ mile of the subject property. The closest site, Joyva Vacant Lot at 498 Johnson Avenue, is located 0.366 miles west-southwest of the subject property. Due to the non-proximate location and lower elevation of the site, it is unlikely to affect the environmental quality of the subject property.

The NYDEC Spills and Leaking Underground Storage Tank (LUST) lists were searched for all reported spills within ½ mile of the subject property. The subject property is not identified in the Spill/LUST database. A total of 47 Spills or LUSTs have occurred within ½ mile of the subject property. The closest site with an active LUST, Service Box 53501 at 49 Wyckoff Street, is located 0.349 miles south of the subject property. Spill number 10-09563 was opened on December 7, 2010. The #2 fuel oil spill was caused by a tank test failure. Due to the non-proximate location, it is unlikely to affect the environmental quality of the subject property. A spill also occurred at 92-94 Scott Avenue, the adjacent property to the west. Spill number 02-12121 was opened on March 10, 2003. Contaminated soil was found during a tank removal. Corrective action was taken, and the spill number was closed on December 29, 2003. The spill is unlikely to have affected the environmental quality of the subject property.

The NYDEC listing of Petroleum Bulk Storage (PBS), Major Oil Storage (MOSF) and Chemical Bulk Storage (CBS) facilities was searched for any listings within ¼ mile of the subject property. The subject property is not identified in the databases. A total of 51 PBS or CBS facilities are identified in the database within ¼ mile of the property. The closest site, Palm Realty LLC at 92-94 Scott Avenue, is the adjacent property to the west. Three 550-gallon underground storage tanks were removed from the property. The tank held #2 fuel oil. The site is registered in the PBS database with facility ID 2-608675.

The ERNS database is a Federal listing of properties which emergency responses were made to in reference to hazardous waste. The subject property is not listed in the ERNS database.

The USEPA and NYSDEC Institutional Controls/Engineering Controls (IC/EC) database was searched for the subject property. The subject property is not listed in the IC/EC database.

5.2 Local Regulatory Agencies

The New York City Department of Buildings (DOB) file contains a Property Profile Overview for Block 2979, Lot 45. The property address is listed as 255 Randolph Street, Brooklyn, NY 11237. The property owner is listed as 255 Randolph Street Properties LLC. The building is classified as an E9 warehouse and is zoned in a M3-1 district. The building has a footprint of approximately 17,800 square feet, and the property is approximately 18,600 square feet in area. The construction date is listed as 1931.

The property is listed as having no open DOB violations. One open Environmental Control Board violation is listed for the property. This violation is related to a construction infraction.

Three Certificates of Occupancy (C of Os) are listed for the subject property on the DOB website. C of Os dated October 31, 1928; January 1948; and April 1, 2011 indicate that a one-story storage and shipping warehouse is located at the property.

The New York City Bureau of Fire Prevention, Department of Health, and Department of Environmental Protection have not responded to our information requests at the time of this report. Pertinent information received from these city agencies will be provided in an addendum to this report.

5.3 Physical Setting Source

The topography of the area is generally level. The vicinity of the site is approximately 19 feet above mean sea level. The ground surface in the vicinity of the property is covered with asphalt and concrete pavement and industrial buildings.

The subsurface beneath the site consists of unconsolidated sand and gravel layers from the ground surface to approximately 50 feet below ground surface where the Raritan confining unit is encountered. The major aquifer system beneath the subject property is the Upper glacial aquifer. Bedrock beneath the subject property is located approximately 200 feet below ground surface. Regional ground water in the vicinity of the subject property is expected to flow north.

5.4 Historical Use Information of the Subject Property and Adjacent Properties

Historical fire insurance maps for the years 1888 through 2007 were reviewed by ACT.

Summary	Subject Property	As of 1888, the subject property consisted of undeveloped land. By 1907, a one-story acid tank and a one-story evaporating pane, belonging to Robinson Bros Kings County Chemical Works, were constructed. As of 1933, these were replaced with a one-story Robinson Bros Buffalo Ammonia Inc. building and a one-story storage building. By 1951, the storage building was demolished. The property remained substantially unchanged through 2007.
	North	As of 1888, this property consisted of undeveloped land. As of 1907, railroad tracks were constructed, and remained through 2007.
	South	As of 1888, this property consisted undeveloped land. By 1933, a 1.5-story woodshed was constructed. By 1965, it was replaced with the four-story Brooklyn Steel Warehouse Co. warehouse, which remained through 2007.
	East	As of 1888, this property consisted of undeveloped land. By 1907, a three-story building containing storage, grinding, mixing, and acid chambers was constructed. As of 1933, these were replaced with a two-story Robinson Bros Buffalo Ammonia Inc storage and boiler room building, which by 1951 were replaced with Robinson Bros Buffalo Ammonia Inc.'s one-story storage building and one-story acid storage building. By 1965, the storage building was demolished. The property remained substantially unchanged through 2007.
	West	As of 1888, this property consisted of undeveloped land. As of 1965, a one-story grocery warehouse, a one-story auto repair shop, and a one-story private garage were constructed. By 2007, the grocery warehouse was demolished.
	General Vicinity	As of 1888, the vicinity was a sparsely developed residential area. By 1933, it changed into a half-developed commercial and manufacturing area that became fully developed by 1965, and remained substantially unchanged through 2007.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Paul Stewart of ACT performed a site inspection on January 15, 2014. Ben, the vice-president, provided access. The property was traversed on foot.

6.2 General Site Setting

The subject property is located in an industrial area in the northern portion of Brooklyn. The topography of the area is generally level. The immediate vicinity of the subject property contains industrial development.

6.3 Exterior Observations

The subject property contains a one- and two-story commercial warehouse. The exterior of the building is constructed of brick, and the building has a flat roof. A gravel yard is located along the northern property boundary separating the building from railroad tracks. The site contact indicated that building previously had a railroad siding. The railroad tracks could not be inspected due to overgrowth.

No exterior storm drains were observed at the property. No stains, odors, or evidence of spills were observed throughout the exterior of the property.

6.4 Interior Observations

The building is occupied by Handy Lee Enterprises. The interior of the building consists of concrete floors, cinderblock and brick walls, and wood and steel ceilings. The main entrance of the building is located on the southern property boundary along Randolph Street, and an additional entrance is located on the north side of the building. Two overhead doors are located on the south side of the building.

The building consists of a large warehouse used for storage of non-perishable food, with loading docks at the southern portion of the building. A utility room and office are located on the ground floor, and office space is also located on the second floor. The building has a partial basement, which contains an inactive fuel oil boiler.

Solid waste is stored in a dumpster in the warehouse. There is no evidence of hazardous waste within the solid waste. Several floor drains or sumps were observed throughout the building. A makeshift sump pump had been installed in the basement that appeared to discharge through the ceiling

into a first floor connection. No stains, odors, or evidence of spills, were observed in the vicinity of the drains. Staining that appeared to be caused by a liquid discharge was observed on the northern interior wall of the basement.

6.5 Asbestos

A visual inspection of the property for suspect asbestos-containing materials (ACM) such as pipe and boiler insulation, ceiling tiles, and floor tiles was conducted. No suspect asbestos-containing materials were observed at the property.

These findings comprise only a preliminary inspection of the subject property for ACM and should not be interpreted as a formal asbestos survey. All federal, state, and local regulations should be followed with respect to asbestos-containing materials if renovations or demolition are to be performed at the property.

6.6 Hazardous Materials

A visual inspection of the property was conducted for evidence of potential hazardous material contamination. Four propane cylinders were observed in the warehouse. The containers were in good condition. No other hazardous materials were observed at the subject property.

No areas of stressed vegetation or excavated areas were observed anywhere on the property. No indication of previous environmental investigations, such as groundwater monitoring wells, was observed at the property or any adjoining properties. No pits, ponds, or lagoons indicative of hazardous waste disposal were observed at the property.

6.7 Storage Tanks

Evidence of an underground storage tank was observed at the property. A fuel oil filler was observed in the basement near the inactive boiler. Feed and return lines were observed along the south wall.

No aboveground storage tanks were observed at the property. No evidence of former underground storage tanks, such as asphalt or concrete patches, was observed at the property.

6.8 Radon

The New York State Department of Health maintains records of average radon levels by

county. The average level for Kings County is 1.9 picoCuries per Liter (pCi/L). This level is considered to be within the normal background range. The United States Environmental Protection Agency standard for radon is 4.0 pCi/L.

6.9 Potable Water

The subject property is supplied water by the local municipality. The municipality monitors the quality of this water for organic and inorganic constituents, including lead, in accordance with federal law. The municipality must maintain lead concentrations at less than 15 micrograms per liter.

6.10 Lead Based Paint

A visual inspection of the property for chipped, peeling or cracking paint was performed. No areas of deteriorated paint were observed at the property. Painted surfaces were in good condition.

These findings comprise only a preliminary inspection for lead-based paint at the subject property and should not be interpreted as a formal lead-based paint inspection. All federal, state, and local regulations should be followed with respect to lead-based paint if renovations or demolition activities affecting painted surfaces are to be performed.

6.11 PCBs

No electrical transformers were observed at the property. The building does not contain an elevator. The building does not contain any equipment that could contain substantial amounts of PCB-contaminated oil.

7.0 INTERVIEWS

7.1 Interview with Owner

A Property Owner/Representative Questionnaire has not been returned at the time of this report.

7.2 Interview with Site Manager

A property manager was not available during the site inspection for interview.

7.3 Interview with Occupants

No site occupants were available during the site inspection for interview.

7.4 Interviews with Local Government Officials

ACT attempted to contact officials at the New York City Department of Buildings and Department of Environmental Protection to obtain information indicating recognized environmental conditions in connection with the subject property. No officials were available for interview regarding the subject property.

7.5 Interviews with Others

No additional interviews were conducted as part of this assessment.

8.0 FINDINGS

During the course of this Phase I ESA, ACT has identified the historical industrial use of the subject property and the suspect underground storage tank at the property as known or suspected recognized environmental conditions.

No historical recognized environmental conditions and no *de minimis* conditions were identified at the subject property. No significant data gaps were identified during this assessment.

9.0 OPINION

Based on the scope of work performed, it is ACT's professional opinion that the historical industrial use of the subject property and suspect underground storage tank are recognized environmental conditions that could adversely affect the subject property's environmental quality and that would warrant further environmental study at this time.

No releases of chemicals were noted during the site inspection, nor were any documented releases identified in records maintained by any public agencies having jurisdiction over the subject property. After visually inspecting the subject property and surrounding land, it is also our opinion that the subject property will not be impacted by releases of chemicals in the foreseeable future.

10.0 CONCLUSIONS

Advanced Cleanup Technologies, Inc. (ACT) has performed the Phase I Environmental Site Assessment in conformance with the scope of limitations of ASTM Practice E 1527-05 of 255 Randolph Street, Brooklyn, NY 11237, the “subject property.” Any exceptions to or deletions from this practice are described in Section 2.2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except for the following:

- The historical industrial use of the subject property (Sections 5.2, 5.4, 6.3, and 6.4)
- A suspect underground storage tank (Section 6.7)

11.0 RECOMMENDATIONS

A Phase II investigation should be performed to determine whether the property’s environmental quality has been affected by its historical industrial use. This investigation will include a Ground Penetrating Radar (GPR) survey to determine whether any tanks are present in addition to the collection and laboratory analysis of soil, soil vapor, and groundwater samples. The cost for these tasks should not exceed \$10,000.

12.0 DEVIATIONS

No deviations from the detailed scope of services outlined in Section 2.2 were performed as part of this Phase I ESA.

13.0 ADDITIONAL SERVICES

No additional services beyond the detailed scope of services outlined in Section 2.2 were performed as part of this Phase I ESA.

14.0 REFERENCES

American Society for Testing and Materials Practice E 1527-05, November 1, 2005.

U.S.E.P.A. Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et. seq.).

Databases obtained by ACT from Environmental Data Resources.

New York City Department of Buildings.
New York City Department of Health.

New York City Department of Environmental Protection.

New York City Bureau of Fire Prevention.

U.S.G.S. 7.5 Minute Series Topographic Map, Brooklyn, NY Quadrangle.

Hydrogeologic Framework of Long Island, New York by Smolensky, D.A., Buxton, H.T., and Shernoff, P. K., 1989.

Fire Insurance Maps Obtained by ACT from Environmental Data Resources.

USEPA Safe Drinking Water Act, 42 USC 300, et. Seq. 1982.

15.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

This practice must be conducted by an Environmental Professional (EP) or under the supervision of an EP, which signifies an individual who “possesses sufficient specific education, training and expertise necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases” as defined by ASTM. Individuals who do not qualify as EP’s may assist in the performance of AAI if appropriately trained and supervised by an EP. At a minimum, the EP must be involved in the planning of the site reconnaissance and interviews. The EP is also responsible for the review of the Phase I Environmental Site Assessment and interpretation of the information obtained via the Phase I Investigation.

ACT declares that to the best of our professional knowledge and belief we meet the definition of EP defined in 312.10 of 40 CFR Part 312. ACT has the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. ACT has developed and performed the All Appropriate Inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

Dated: January 24, 2014



By: Paul Stewart, JD, MS
President

16.0 QUALIFICATIONS

The qualifications of the environmental professionals associated with the completion of this Phase I ESA are provided as an Appendix to this report.

APPENDIX B
SOIL BORING LOGS

Soil Boring Log

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS



Project No: 7610-BKNY

Boring No: SB-1/TW-1

Site: 255 Randolph Street, Brooklyn, New York

Date Drilled: 2/11/14

Client: Cathay Bank

Geologist: T. Burkard

Water Table Level: Approximately 4.5' bgs

J. Diamond

Depth (feet)	Description (Unified Soils Classification)	Sample Depth	PID (ppmv)	Inches of Recovery	Remarks
0	0-3": Concrete		0.0		Groundwater sample obtained from boring location. No odor or staining observed. End of boring.
			0.0		
1	3"-1: Dry, light, yellow-brown, medium to	2	0.0		
	very coarse sand with trace silt	to	0.0		
2		4	0.0	31"	
			0.0		
3	1-4.5': Dry to moist, yellowish-brown, fine		0.0		
	to medium sand with trace silt		0.0		
4			0.0		
	4.5-5': Saturated, yellowish-brown, fine to		0.0		
5	medium sand with trace silt		0.0		

Rig Type: AMS Power Probe

Reviewed by: Paul Stewart

Driller: ACT - Jeff Diamond

Sheet No: 1 of 1

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS

Boring No: **SB-2/TW-2**

Date Drilled: 2/11/14

Geologist: T. Burkard

J. Diamond

Depth (feet)	Description (Unified Soils Classification)	Sample Depth	PID (ppmv)	Inches of Recovery	Remarks
0	0-.4": Concrete		0.0		
			0.0		
1	0.4-1.85': Dry, dark yellowish-brown, very coarse sand with some silt, fine gravel	2.5 to 3.5	0.0	15.6"	Groundwater sample obtained from boring location.
2	and trace clay		0.0		
	1.85-3': Dry, dark dusky yellowish-brown		0.0		
3	fine to coarse clayey sand with gravel		0.0		
	3-3.5': Moist, moderate yellow-brown, fine		0.0		
4	to coarse silty sand		0.0		
	3.5-4': Moist, moderate, yellowish-brown to		0.0		No odor or staining observed.
5	ligh brown, medium silty sands		0.0		End of boring.

Reviewed by: Paul Stewart

Sheet No: 1 of 1

Soil Boring Log

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS



Project No: 7610-BKNY

Boring No: SB-2/TW-2

Site: 255 Randolph Street, Brooklyn, New York

Date Drilled: 2/11/14

Client: Cathay Bank

Geologist: T. Burkard

Water Table Level: Approximately 15' bgs

J. Diamond

Depth (feet)	Description (Unified Soils Classification)	Sample Depth	PID (ppmv)	Inches of Recovery	Remarks
0	0-5.5": Dry, dark brown to black, silty		0.0		
	gravel mixed with coarse sand and		0.0		
1	cobbles		0.0		
			0.0		
2	5.5"-5': Moist, dark gray to dark yellowish		0.0	26"	
	brown, silty, medium sands mixed with		0.0		
3	fill materials and cobbles		0.0		
			0.0		
4			0.0		
			0.0		
5			0.0		No odor or staining observed.
			0.0		
6	5-6.7': Moist, dusky yellowish-brown,		0.0		
	medium to coarse silty sands		0.0		
7			0.0		
	6.7-10': Moist, medium, yellow-brown sand		0.0	43"	
8	mixed with gravel		0.0		
			0.0		
9			0.0		
			0.0		
10			0.0		No odor or staining observed.
			0.0		
11	10-12': Dry, grayish, black, very coarse		0.0		
	sand mixed with gravel, silt and coal		0.0		
12	fragments		8.1		
	12-13': Moist, light gray to brown, silty	14	19.2	57.2"	
13	medium sands with gravel	to	1489.0		
	13-15': Moist to saturated, reddish brown,	16	267.0		
14	medium silty sand		56.1		
	15-16': Saturated, grayish-brown, medium		0.0		No odor throughout boring.
15	silty sand		0.0		End of boring approximately 16' bgs.

Rig Type: AMS Power Probe

Reviewed by: Paul Stewart

Driller: ACT - Jeff Diamond

Sheet No: 1 of 1

Soil Boring Log

Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS



Project No: 7610-BKNY

Boring No: SB-4/TW-4

Site: 255 Randolph Street, Brooklyn, New York

Date Drilled: 2/12/14

Client: Cathay Bank

Geologist: J. Diamond

Water Table Level: Approximately 15' bgs

Depth (feet)	Description (Unified Soils Classification)	Sample Depth	PID (ppmv)	Inches of Recovery	Remarks
0	0-6": Concrete		0.0		
		1	0.0		
1	0.6-3.6': Dry, grayish-black, medium to very coarse sand with fine to coarse gravel	to 3	0.0 0.0		
				31.2"	
2			0.0		
			124.0		
3			315.0		
			375.0		
4	3.6-5': Dry, light brown, medium to very coarse sand with trace silt		68.7		
			75.3		
5			0.0		No petro odor or staining observed.
			0.0		
6	5.0-8.15'L Dry, light brown, medium to coarse sand with some fine gravel and trace silt		0.0 0.0		
7			398.0		
	8.15-8.5': Dry, dark yellow-brown, fine to coarse sand with trace fine gravel		51.7	43.2"	
8			19.8		
	8.5-10.0': Dry, moderate to dark yellow-brown coarse to very coarse sand mixed with trace gravel		16.3		
9			17.4		
			10.2		
10			0.0		No petro odor or staining observed.
			0.0		
11	10-13': Dry to moist, moderate to dark yellowish-brown, very coarse to medium sand		79.6 11.7		
12			28.9		
	10-13': Saturated, moderate to dark yellowish-brown, coarse sand		16.0	49.2"	
13			19.7		
	13-14': Saturated, dark yellowish-brown, medium to fine sand		267.0		
14			56.1		
	14-15': Saturated, dark yellowish-brown coarse to very coarse sand		0.0		No petro odor throughout boring.
15			0.0		End of boring approximately 15' bgs.

Rig Type: AMS Power Probe

Reviewed by: Paul Stewart

Driller: ACT - Jeff Diamond

Sheet No: 1 of 1

APPENDIX C
LABORATORY REPORTS

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 12:50:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> E200.7 :		<u>Prep Method:</u> E200.7		<u>Prep Date:</u> 2/18/2014 9:04:26 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	< 0.20		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Antimony	< 60.0		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Arsenic	< 10.0		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Barium	< 0.20		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Beryllium	< 5.00		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Cadmium	< 5.00		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Calcium	73.7		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Chromium	< 0.01		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Cobalt	< 0.05		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Copper	< 0.02		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Iron	1.59		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Lead	26.8		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Magnesium	24.6		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Manganese	0.10		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Nickel	< 0.04		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Potassium	4.76		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Selenium	< 5.00		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Silver	< 0.01		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Sodium	72.9		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Thallium	< 10.0		1	ug/L	02/18/2014 9:58 PM	Container-01 of 01
Vanadium	< 0.05		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01
Zinc	0.04		1	mg/L	02/18/2014 9:58 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 12:50:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001
Client Sample ID: TW-1

<u>Analytical Method:</u> SW8081/8082 :		<u>Prep Method:</u>	3510C		<u>Prep Date:</u> 2/18/2014 11:19:25 AM		<u>Analyst:</u> JS
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
4,4´-DDD	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
4,4´-DDE	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
4,4´-DDT	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Aldrin	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
alpha-BHC	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
alpha-Chlordane	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Aroclor 1016	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1221	< 2.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1232	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1242	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1248	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1254	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
Aroclor 1260	< 1.0		1	µg/L		02/19/2014 8:20 AM	Container-01 of 04
beta-BHC	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
delta-BHC	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Dieldrin	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endosulfan I	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endosulfan II	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endosulfan sulfate	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endrin	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endrin aldehyde	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Endrin ketone	< 0.10		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
gamma-BHC	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
gamma-Chlordane	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Heptachlor	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Heptachlor epoxide	< 0.050		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Methoxychlor	< 0.50		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Toxaphene	< 5.0		1	µg/L		02/19/2014 11:32 AM	Container-01 of 04
Surr: Decachlorobiphenyl	59.4		1	%REC	Limit 30-150	02/19/2014 8:20 AM	Container-01 of 04
Surr: Decachlorobiphenyl	63.6		1	%REC	Limit 30-150	02/19/2014 11:32 AM	Container-01 of 04
Surr: Tetrachloro-m-xylene	72.5		1	%REC	Limit 30-150	02/19/2014 11:32 AM	Container-01 of 04
Surr: Tetrachloro-m-xylene	75.5		1	%REC	Limit 30-150	02/19/2014 8:20 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.
 B = Found in Blank
 D.F. = Dilution Factor D = Results for Dilution
 H = Received/analyzed outside of analytical holding time
 + = ELAP / NELAC does not offer certification for this analyte
 c = Calibration acceptability criteria exceeded for this analyte
 r = Reporting limit > MDL and < LOQ, Value estimated.
 J = Estimated value - below calibration range
 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 12:50:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u>	5030C		<u>Analyst:</u> KG
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
1,1,1-Trichloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,1-Dichloroethene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2,4-Trichlorobenzene	< 10	c	1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
2-Butanone	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
2-Hexanone	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Acetone	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Benzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Bromoform	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Bromomethane	< 10	c	1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Carbon disulfide	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Carbon tetrachloride	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Chlorobenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Chloroethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Chloroform	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Chloromethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Cyclohexane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

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Collected : 2/11/2014 12:50:00 PM

Received : 2/14/2014 10:00:00 AM

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5030C			<u>Analyst:</u> KG
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
Dichlorodifluoromethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Ethylbenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Methyl Acetate	< 10	c	1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Methylcyclohexane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Methylene chloride	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Styrene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Tetrachloroethene	43		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Toluene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
trans-1,2-Dichloroethene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Trichloroethene	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Vinyl chloride	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Xylene (total)	< 10		1	µg/L	02/17/2014 10:00 AM Container-01 of 02
Surr: 1,2-Dichloroethane-d4	86.2		1	%REC	Limit 53-183 02/17/2014 10:00 AM Container-01 of 02
Surr: 4-Bromofluorobenzene	91.5		1	%REC	Limit 63-140 02/17/2014 10:00 AM Container-01 of 02
Surr: Toluene-d8	90.9		1	%REC	Limit 60-135 02/17/2014 10:00 AM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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+ = ELAP / NELAC does not offer certification for this analyte

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J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

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 Hicksville, NY 11801**

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Collected : 2/11/2014 12:50:00 PM

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4,5-Trichlorophenol	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4,6-Trichlorophenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4-Dichlorophenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4-Dimethylphenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4-Dinitrophenol	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,4-Dinitrotoluene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2,6-Dinitrotoluene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Chloronaphthalene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Chlorophenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Methylnaphthalene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Methylphenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Nitroaniline	< 25	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
2-Nitrophenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
3,3'-Dichlorobenzidine	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
3-Nitroaniline	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Bromophenyl-phenylether	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Chloro-3-methylphenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Chloroaniline	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Chlorophenyl-phenylether	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Methylphenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Nitroaniline	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
4-Nitrophenol	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Acenaphthene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Acenaphthylene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Acetophenone	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Anthracene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Atrazine	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Benzaldehyde	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Benzo(a)anthracene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.
 B = Found in Blank
 D.F. = Dilution Factor D = Results for Dilution
 H = Received/analyzed outside of analytical holding time
 + = ELAP / NELAC does not offer certification for this analyte
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 r = Reporting limit > MDL and < LOQ, Value estimated.
 J = Estimated value - below calibration range
 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

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 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 12:50:00 PM

Received : 2/14/2014 10:00:00 AM

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Benzo(b)fluoranthene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Benzo(g,h,i)perylene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Benzo(k)fluoranthene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Bis(2-chloroethoxy)methane	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Bis(2-chloroethyl)ether	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Butyl benzyl phthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Caprolactam	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Carbazole	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Chrysene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Dibenzo(a,h)anthracene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Dibenzofuran	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Diethylphthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Dimethylphthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Di-n-butyl phthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Di-n-octyl phthalate	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Fluoranthene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Fluorene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Hexachlorobenzene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Hexachlorobutadiene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Hexachlorocyclopentadiene	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Hexachloroethane	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Isophorone	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Naphthalene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Nitrobenzene	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
N-Nitroso-di-n-propylamine	< 10	c	1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
N-Nitrosodiphenylamine	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Pentachlorophenol	< 25		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Phenanthrene	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04
Phenol	< 10		1	µg/L	02/18/2014 9:09 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

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Collected : 2/11/2014 12:50:00 PM

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-001

Client Sample ID: TW-1

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Pyrene	< 10		1	µg/L		02/18/2014 9:09 AM	Container-01 of 04
Surr: 1,2-Dichlorobenzene-d4	70.9		1	%REC	Limit 16-110	02/18/2014 9:09 AM	Container-01 of 04
Surr: 2,4,6-Tribromophenol	113		1	%REC	Limit 10-123	02/18/2014 9:09 AM	Container-01 of 04
Surr: 2-Chlorophenol-d4	72.7		1	%REC	Limit 33-110	02/18/2014 9:09 AM	Container-01 of 04
Surr: 2-Fluorobiphenyl	74.9		1	%REC	Limit 43-116	02/18/2014 9:09 AM	Container-01 of 04
Surr: 2-Fluorophenol	64.3		1	%REC	Limit 21-110	02/18/2014 9:09 AM	Container-01 of 04
Surr: 4-Terphenyl-d14	58.7		1	%REC	Limit 33-141	02/18/2014 9:09 AM	Container-01 of 04
Surr: Nitrobenzene-d5	69.2		1	%REC	Limit 35-114	02/18/2014 9:09 AM	Container-01 of 04
Surr: Phenol-d5	66.6		1	%REC	Limit 10-110	02/18/2014 9:09 AM	Container-01 of 04
<u>Analytical Method:</u> E245.1 :		<u>Prep Method:</u> E245.1		<u>Prep Date:</u> 2/19/2014 10:29:12 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Mercury	< 0.2		1	ug/L		02/19/2014 2:45 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

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Client Services Manager

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-002

Client Sample ID: TW-2

Analytical Method: SW8260 :		Prep Method: 5030C		Analyst: KG	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed: Container:
1,1,1-Trichloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,1-Dichloroethene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2,4-Trichlorobenzene	< 10	c	1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
2-Butanone	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
2-Hexanone	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Acetone	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Benzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Bromoform	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Bromomethane	< 10	c	1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Carbon disulfide	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Carbon tetrachloride	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Chlorobenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Chloroethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Chloroform	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Chloromethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
cis-1,2-Dichloroethene	820	D	20	µg/L	02/17/2014 2:08 PM Container-02 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Cyclohexane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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Client Services Manager

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 Hicksville, NY 11801**

Attn To : Karen Friedman

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Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-002

Client Sample ID: TW-2

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5030C			<u>Analyst:</u> KG
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
Dichlorodifluoromethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Ethylbenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Methyl Acetate	< 10	c	1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Methylcyclohexane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Methylene chloride	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Styrene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Tetrachloroethene	1,100	D	20	µg/L	02/17/2014 2:08 PM Container-02 of 02
Toluene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
trans-1,2-Dichloroethene	17		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Trichloroethene	180		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Trichlorofluoromethane	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Vinyl chloride	25		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Xylene (total)	< 10		1	µg/L	02/17/2014 10:30 AM Container-01 of 02
Surr: 1,2-Dichloroethane-d4	86.7		1	%REC	Limit 53-183 02/17/2014 10:30 AM Container-01 of 02
Surr: 4-Bromofluorobenzene	90.8		1	%REC	Limit 63-140 02/17/2014 10:30 AM Container-01 of 02
Surr: Toluene-d8	91.5		1	%REC	Limit 60-135 02/17/2014 10:30 AM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:30:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-003

Client Sample ID: TW-3

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5030C		<u>Analyst:</u> KG		
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1,1-Trichloroethane	53		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethan	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,1-Dichloroethane	26		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,1-Dichloroethene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2,4-Trichlorobenzene	< 10	c	1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
2-Butanone	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
2-Hexanone	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Acetone	13		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Benzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Bromoform	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Bromomethane	< 10	c	1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Carbon disulfide	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Carbon tetrachloride	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Chlorobenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Chloroethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Chloroform	12		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Chloromethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
cis-1,2-Dichloroethene	1,100	D	50	µg/L	02/17/2014 2:37 PM	Container-02 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Cyclohexane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:30:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-003

Client Sample ID: TW-3

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5030C		<u>Analyst:</u> KG		
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Dichlorodifluoromethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Methyl Acetate	< 10	c	1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Methylcyclohexane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Styrene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Tetrachloroethene	2,100	D	50	µg/L	02/17/2014 2:37 PM	Container-02 of 02
Toluene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
trans-1,2-Dichloroethene	17		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
trans-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Trichloroethene	490	D	5	µg/L	02/17/2014 12:03 PM	Container-02 of 02
Trichlorofluoromethane	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Vinyl chloride	170	D	5	µg/L	02/17/2014 12:03 PM	Container-02 of 02
Xylene (total)	< 10		1	µg/L	02/17/2014 11:00 AM	Container-01 of 02
Surr: 1,2-Dichloroethane-d4	86.2		1	%REC	Limit 53-183	02/17/2014 11:00 AM Container-01 of 02
Surr: 4-Bromofluorobenzene	91.6		1	%REC	Limit 63-140	02/17/2014 11:00 AM Container-01 of 02
Surr: Toluene-d8	93.8		1	%REC	Limit 60-135	02/17/2014 11:00 AM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> E200.7 :		<u>Prep Method:</u> E200.7		<u>Prep Date:</u> 2/18/2014 9:04:26 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	< 0.20		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Antimony	< 60.0		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Arsenic	< 10.0		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Barium	< 0.20		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Beryllium	< 5.00		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Cadmium	< 5.00		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Calcium	66.0		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Chromium	< 0.01		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Cobalt	< 0.05		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Copper	< 0.02		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Iron	0.65		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Lead	24.3		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Magnesium	19.6		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Manganese	0.23		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Nickel	< 0.04		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Potassium	5.49		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Selenium	< 5.00		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Silver	< 0.01		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Sodium	95.9		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Thallium	< 10.0		1	ug/L	02/18/2014 10:22 PM	Container-01 of 01
Vanadium	< 0.05		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01
Zinc	< 0.02		1	mg/L	02/18/2014 10:22 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound

Date Reported : 2/19/2014



Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8081/8082 :		<u>Prep Method:</u>	3510C		<u>Prep Date:</u> 2/18/2014 11:19:25 AM		<u>Analyst:</u> JS
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
4,4´-DDD	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
4,4´-DDE	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
4,4´-DDT	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Aldrin	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
alpha-BHC	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
alpha-Chlordane	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Aroclor 1016	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1221	< 2.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1232	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1242	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1248	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1254	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
Aroclor 1260	< 1.0		1	µg/L		02/19/2014 8:36 AM	Container-01 of 04
beta-BHC	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
delta-BHC	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Dieldrin	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endosulfan I	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endosulfan II	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endosulfan sulfate	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endrin	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endrin aldehyde	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Endrin ketone	< 0.10		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
gamma-BHC	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
gamma-Chlordane	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Heptachlor	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Heptachlor epoxide	< 0.050		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Methoxychlor	< 0.50		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Toxaphene	< 5.0		1	µg/L		02/19/2014 1:29 PM	Container-01 of 04
Surr: Decachlorobiphenyl	80.8		1	%REC	Limit 30-150	02/19/2014 8:36 AM	Container-01 of 04
Surr: Decachlorobiphenyl	62.2		1	%REC	Limit 30-150	02/19/2014 1:29 PM	Container-01 of 04
Surr: Tetrachloro-m-xylene	83.0		1	%REC	Limit 30-150	02/19/2014 1:29 PM	Container-01 of 04
Surr: Tetrachloro-m-xylene	102		1	%REC	Limit 30-150	02/19/2014 8:36 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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+ = ELAP / NELAC does not offer certification for this analyte

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u>	5030C		<u>Analyst:</u> KG
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
1,1,1-Trichloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,1,2,2-Tetrachloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,1,2-Trichloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,1-Dichloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,1-Dichloroethene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2,4-Trichlorobenzene	< 10	c	1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2-Dibromo-3-chloropropane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2-Dibromoethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2-Dichlorobenzene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2-Dichloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,2-Dichloropropane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,3-Dichlorobenzene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
1,4-Dichlorobenzene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
2-Butanone	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
2-Hexanone	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
4-Methyl-2-pentanone	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Acetone	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Benzene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Bromodichloromethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Bromoform	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Bromomethane	< 10	c	1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Carbon disulfide	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Carbon tetrachloride	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Chlorobenzene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Chloroethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Chloroform	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Chloromethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
cis-1,2-Dichloroethene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
cis-1,3-Dichloropropene	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Cyclohexane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02
Dibromochloromethane	< 10		1	µg/L	02/17/2014 6:37 PM Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

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Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5030C		<u>Analyst:</u> KG		
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Dichlorodifluoromethane	< 10	c	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Ethylbenzene	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Isopropylbenzene	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Methyl Acetate	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Methyl tert-butyl ether	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Methylcyclohexane	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Methylene chloride	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Styrene	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Tetrachloroethene	67		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
Toluene	< 10		1	µg/L	02/17/2014 6:37 PM	Container-01 of 02
trans-1,2-Dichloroethene	< 10	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
trans-1,3-Dichloropropene	< 10	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
Trichloroethene	20	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
Trichlorofluoromethane	< 10	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
Vinyl chloride	< 10	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
Xylene (total)	< 10	1	µg/L	02/17/2014 6:37 PM	Container-01 of 02	
Surr: 1,2-Dichloroethane-d4	85.8	1	%REC	Limit 53-183	02/17/2014 6:37 PM	Container-01 of 02
Surr: 4-Bromofluorobenzene	90.4	1	%REC	Limit 63-140	02/17/2014 6:37 PM	Container-01 of 02
Surr: Toluene-d8	92.2	1	%REC	Limit 60-135	02/17/2014 6:37 PM	Container-01 of 02

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u>	SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM	<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,2'-oxybis(1-chloropropane)	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4,5-Trichlorophenol	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4,6-Trichlorophenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4-Dichlorophenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4-Dimethylphenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4-Dinitrophenol	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,4-Dinitrotoluene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2,6-Dinitrotoluene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Chloronaphthalene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Chlorophenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Methylnaphthalene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Methylphenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Nitroaniline	< 25	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
2-Nitrophenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
3,3'-Dichlorobenzidine	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
3-Nitroaniline	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4,6-Dinitro-2-methylphenol	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Bromophenyl-phenylether	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Chloro-3-methylphenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Chloroaniline	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Chlorophenyl-phenylether	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Methylphenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Nitroaniline	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
4-Nitrophenol	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Acenaphthene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Acenaphthylene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Acetophenone	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Anthracene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Atrazine	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Benzaldehyde	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Benzo(a)anthracene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

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r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Benzo(b)fluoranthene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Benzo(g,h,i)perylene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Benzo(k)fluoranthene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Bis(2-chloroethoxy)methane	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Bis(2-chloroethyl)ether	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Bis(2-ethylhexyl)phthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Butyl benzyl phthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Caprolactam	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Carbazole	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Chrysene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Dibenzo(a,h)anthracene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Dibenzofuran	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Diethylphthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Dimethylphthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Di-n-butyl phthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Di-n-octyl phthalate	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Fluoranthene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Fluorene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Hexachlorobenzene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Hexachlorobutadiene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Hexachlorocyclopentadiene	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Hexachloroethane	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Indeno(1,2,3-cd)pyrene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Isophorone	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Naphthalene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Nitrobenzene	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
N-Nitroso-di-n-propylamine	< 10	c	1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
N-Nitrosodiphenylamine	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Pentachlorophenol	< 25		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Phenanthrene	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04
Phenol	< 10		1	µg/L	02/18/2014 9:37 AM	Container-01 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

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N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 3:00:00 PM

Received : 2/14/2014 10:00:00 AM

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Aqueous

Origin:

Lab No. : 1402686-004

Client Sample ID: TW-4

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3520C		<u>Prep Date:</u> 2/15/2014 6:49:19 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Pyrene	< 10		1	µg/L		02/18/2014 9:37 AM	Container-01 of 04
Surr: 1,2-Dichlorobenzene-d4	66.4		1	%REC	Limit 16-110	02/18/2014 9:37 AM	Container-01 of 04
Surr: 2,4,6-Tribromophenol	120		1	%REC	Limit 10-123	02/18/2014 9:37 AM	Container-01 of 04
Surr: 2-Chlorophenol-d4	69.6		1	%REC	Limit 33-110	02/18/2014 9:37 AM	Container-01 of 04
Surr: 2-Fluorobiphenyl	76.6		1	%REC	Limit 43-116	02/18/2014 9:37 AM	Container-01 of 04
Surr: 2-Fluorophenol	59.4		1	%REC	Limit 21-110	02/18/2014 9:37 AM	Container-01 of 04
Surr: 4-Terphenyl-d14	61.8		1	%REC	Limit 33-141	02/18/2014 9:37 AM	Container-01 of 04
Surr: Nitrobenzene-d5	60.8		1	%REC	Limit 35-114	02/18/2014 9:37 AM	Container-01 of 04
Surr: Phenol-d5	62.6		1	%REC	Limit 10-110	02/18/2014 9:37 AM	Container-01 of 04

<u>Analytical Method:</u> E245.1 :		<u>Prep Method:</u> E245.1		<u>Prep Date:</u> 2/19/2014 10:29:12 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Mercury	< 0.2		1	ug/L		02/19/2014 2:47 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
 B = Found in Blank
 D.F. = Dilution Factor D = Results for Dilution
 H = Received/analyzed outside of analytical holding time
 + = ELAP / NELAC does not offer certification for this analyte
 c = Calibration acceptability criteria exceeded for this analyte
 r = Reporting limit > MDL and < LOQ, Value estimated.
 J = Estimated value - below calibration range
 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound

Date Reported : 2/19/2014



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

Client Name **ACT-ECO**

Date and Time Received: **2/14/2014 10:00:00 AM**

Work Order Number: **1402686**

RcptNo: **1**

Received by **Linda Siciliano**

Completed by:

Reviewed by:

Completed Date: **2/14/2014 10:43:27 AM**

Reviewed Date: **2/19/2014 5:20:09 PM**

Carrier name: Client

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Are matrices correctly identified on Chain of custody?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Is it clear what analyses were requested?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Were correct preservatives used and noted?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Preservative added to bottles:				
Sample Condition?	Intact <input checked="" type="checkbox"/>	Broken <input type="checkbox"/>	Leaking <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Were container labels complete (ID, Pres, Date)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Was an attempt made to cool the samples?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
All samples received at a temp. of > 0° C to 6.0° C?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Response when temperature is outside of range:				
Sample Temp. taken and recorded upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	To 4.2 ° <input type="checkbox"/>	
Water - Were bubbles absent in VOC vials?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No Vials <input type="checkbox"/>	
Water - Was there Chlorine Present?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No Water <input type="checkbox"/>	
Are Samples considered acceptable?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Custody Seals present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
Airbill or Sticker?	Air Bil <input type="checkbox"/>	Sticker <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	
Airbill No:				

Case Number:

SDG:

SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☒ NA Person Contacted:
Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:
Client Instructions:
Date Contacted: Contacted By:
Regarding:
Comments:
CorrectiveAction:

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001
Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW6010 :		<u>Prep Method:</u> SW3050A		<u>Prep Date:</u> 2/18/2014 10:04:24 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	434		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Antimony	< 6.25		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Arsenic	< 1.04		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Barium	< 20.8		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Beryllium	< 0.52		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Cadmium	< 0.52		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Calcium	227		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Chromium	6.09		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Cobalt	< 5.21		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Copper	2.59		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Iron	2,930		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Lead	60.1		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Magnesium	60.9		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Manganese	7.55		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Nickel	< 4.17		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Potassium	406		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Selenium	0.91		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Silver	< 1.04		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Sodium	61.4		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Thallium	< 1.04		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Vanadium	< 5.21		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01
Zinc	3.61		1	mg/kg-dry	02/19/2014 12:30 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

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J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

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Client Services Manager

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LABORATORY RESULTS

Results for the samples and analytes requested

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Advanced Cleanup Technologies

960 South Broadway, Suite 100
 Hicksville, NY 11801

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

Lab No. : 1402685-001

Client Sample ID: SB-1 (2-4)

Sample Information:

Type : Soil

Origin:

Analytical Method: SW8081/8082 :		Prep Method: SW3545		Prep Date: 2/17/2014 10:00:36 AM		Analyst: JS
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
4,4'-DDD	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
4,4'-DDE	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
4,4'-DDT	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Aldrin	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
alpha-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
alpha-Chlordane	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Aroclor 1016	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1221	< 70		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1232	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1242	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1248	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1254	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
Aroclor 1260	< 34		1	µg/Kg-dry	02/19/2014 5:14 PM	Container-01 of 01
beta-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
delta-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Dieldrin	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endosulfan I	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endosulfan II	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endosulfan sulfate	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endrin	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endrin aldehyde	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Endrin ketone	< 3.4		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
gamma-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
gamma-Chlordane	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Heptachlor	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Heptachlor epoxide	< 1.8		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Methoxychlor	< 18		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Toxaphene	< 180		1	µg/Kg-dry	02/19/2014 9:07 PM	Container-01 of 01
Surr: Decachlorobiphenyl	66.9		1	%REC Limit 30-150	02/19/2014 9:07 PM	Container-01 of 01
Surr: Decachlorobiphenyl	63.1		1	%REC Limit 30-150	02/19/2014 5:14 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	83.0		1	%REC Limit 30-150	02/19/2014 5:14 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	101		1	%REC Limit 30-150	02/19/2014 9:07 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001

Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u>	5035A-L		<u>Analyst:</u> GKB
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
1,1,1-Trichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,1,2,2-Tetrachloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,1,2-Trichloro-1,2,2-trifluoroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,1,2-Trichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,1-Dichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,1-Dichloroethene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2,4-Trichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2-Dibromo-3-chloropropane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2-Dibromoethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2-Dichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,2-Dichloropropane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,3-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
1,4-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
2-Butanone	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
2-Hexanone	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
4-Methyl-2-pentanone	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Acetone	20	c	1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Benzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Bromodichloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Bromoform	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Bromomethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Carbon disulfide	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Carbon tetrachloride	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Chlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Chloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Chloroform	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Chloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
cis-1,2-Dichloroethene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
cis-1,3-Dichloropropene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Cyclohexane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04
Dibromochloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM Container-03 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

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D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001

Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L		<u>Analyst:</u> GKB			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Dichlorodifluoromethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Ethylbenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Isopropylbenzene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Methyl Acetate	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Methyl tert-butyl ether	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Methylcyclohexane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Methylene chloride	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Styrene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Tetrachloroethene	63		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Toluene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
trans-1,2-Dichloroethene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
trans-1,3-Dichloropropene	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Trichloroethene	33		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Trichlorofluoromethane	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Vinyl chloride	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Xylene (total)	< 13		1	µg/Kg-dry	02/18/2014 4:10 PM	Container-03 of 04	
Surr: 1,2-Dichloroethane-d4	93.1		1	%REC	Limit 33-150	02/18/2014 4:10 PM	Container-03 of 04
Surr: 4-Bromofluorobenzene	93.6		1	%REC	Limit 34-145	02/18/2014 4:10 PM	Container-03 of 04
Surr: Toluene-d8	108		1	%REC	Limit 43-157	02/18/2014 4:10 PM	Container-03 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
Hicksville, NY 11801**

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Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001
Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4-Dichlorophenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4-Dimethylphenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4-Dinitrophenol	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,4-Dinitrotoluene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2,6-Dinitrotoluene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Chloronaphthalene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Chlorophenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Methylnaphthalene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Methylphenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
2-Nitrophenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
3-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Chloroaniline	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Methylphenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
4-Nitrophenol	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Acenaphthene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Acenaphthylene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Acetophenone	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Anthracene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Atrazine	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Benzaldehyde	< 340	c	1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Benzo(a)anthracene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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+ = ELAP / NELAC does not offer certification for this analyte

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001
Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u>	SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM	<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Benzo(b)fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Benzo(k)fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Butyl benzyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Caprolactam	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Carbazole	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Chrysene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Dibenzofuran	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Diethylphthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Dimethylphthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Di-n-butyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Di-n-octyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Fluorene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Hexachlorobenzene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Hexachlorobutadiene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 340	c	1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Hexachloroethane	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Isophorone	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Naphthalene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Nitrobenzene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 340	c	1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Pentachlorophenol	< 860		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Phenanthrene	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01
Phenol	< 340		1	µg/Kg-dry	02/20/2014 2:10 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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S = Recovery exceeded control limits for this analyte

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 11:55:00 AM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-001

Client Sample ID: SB-1 (2-4)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Pyrene	< 340		1	µg/Kg-dry		02/20/2014 2:10 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	81.4		1	%REC	Limit 20-130	02/20/2014 2:10 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	103		1	%REC	Limit 19-122	02/20/2014 2:10 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	81.7		1	%REC	Limit 20-130	02/20/2014 2:10 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	90.3		1	%REC	Limit 30-115	02/20/2014 2:10 PM	Container-01 of 01
Surr: 2-Fluorophenol	80.0		1	%REC	Limit 25-121	02/20/2014 2:10 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	67.1		1	%REC	Limit 18-137	02/20/2014 2:10 PM	Container-01 of 01
Surr: Nitrobenzene-d5	76.7		1	%REC	Limit 23-120	02/20/2014 2:10 PM	Container-01 of 01
Surr: Phenol-d5	80.7		1	%REC	Limit 24-113	02/20/2014 2:10 PM	Container-01 of 01
<u>Analytical Method:</u> SW7471 :		<u>Prep Method:</u> SW7471		<u>Prep Date:</u> 2/19/2014 11:58:47 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Mercury	0.31		1	mg/Kg-dry		02/19/2014 3:34 PM	Container-01 of 01
<u>Analytical Method:</u> D2216 :						<u>Analyst:</u> EM	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Percent Moisture	4.0		1	wt%		02/17/2014 6:46 AM	Container-01 of 01

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 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound

Date Reported : 2/20/2014



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 1:30:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-002

Client Sample ID: SB-2

<u>Analytical Method:</u> SW6010 :		<u>Prep Method:</u> SW3050A		<u>Prep Date:</u> 2/18/2014 10:04:24 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	7,520		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Antimony	< 7.05		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Arsenic	2.30		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Barium	49.0		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Beryllium	< 0.59		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Cadmium	0.74		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Calcium	650		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Chromium	10.9		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Cobalt	< 5.88		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Copper	29.8		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Iron	13,100		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Lead	67.5		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Magnesium	1,300		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Manganese	105		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Nickel	6.32		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Potassium	361		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Selenium	2.92		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Silver	< 1.18		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Sodium	65.1		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Thallium	< 1.18		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Vanadium	16.9		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01
Zinc	25.1		1	mg/kg-dry	02/19/2014 1:18 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

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J = Estimated value - below calibration range

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Page 8 of 30

LABORATORY RESULTS

Results for the samples and analytes requested

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Collected By Client

Lab No. : 1402685-002

Client Sample ID: SB-2

Sample Information:

Type : Soil

Origin:

Analytical Method: SW8081/8082 :		Prep Method: SW3545		Prep Date: 2/17/2014 10:00:36 AM		Analyst: JS
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
4,4'-DDD	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
4,4'-DDE	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
4,4'-DDT	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Aldrin	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
alpha-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
alpha-Chlordane	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Aroclor 1016	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1221	< 79		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1232	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1242	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1248	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1254	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
Aroclor 1260	< 39		1	µg/Kg-dry	02/19/2014 5:30 PM	Container-01 of 01
beta-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
delta-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Dieldrin	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endosulfan I	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endosulfan II	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endosulfan sulfate	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endrin	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endrin aldehyde	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Endrin ketone	< 3.9		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
gamma-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
gamma-Chlordane	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Heptachlor	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Heptachlor epoxide	< 2.0		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Methoxychlor	< 20		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Toxaphene	< 200		1	µg/Kg-dry	02/19/2014 9:24 PM	Container-01 of 01
Surr: Decachlorobiphenyl	92.2		1	%REC Limit 30-150	02/19/2014 9:24 PM	Container-01 of 01
Surr: Decachlorobiphenyl	60.7		1	%REC Limit 30-150	02/19/2014 5:30 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	72.2		1	%REC Limit 30-150	02/19/2014 5:30 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	93.2		1	%REC Limit 30-150	02/19/2014 9:24 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Collected : 2/11/2014 1:30:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-002

Client Sample ID: SB-2

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L			<u>Analyst:</u> GKB
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Container:</u>
1,1,1-Trichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,1,2,2-Tetrachloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,1,2-Trichloro-1,2,2-trifluoroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,1,2-Trichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,1-Dichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,1-Dichloroethene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2,4-Trichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2-Dibromo-3-chloropropane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2-Dibromoethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2-Dichloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,2-Dichloropropane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,3-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
1,4-Dichlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
2-Butanone	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
2-Hexanone	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
4-Methyl-2-pentanone	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Acetone	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Benzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Bromodichloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Bromoform	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Bromomethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Carbon disulfide	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Carbon tetrachloride	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Chlorobenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Chloroethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Chloroform	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Chloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
cis-1,2-Dichloroethene	57		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
cis-1,3-Dichloropropene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Cyclohexane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04
Dibromochloromethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM Container-03 of 04

Qualifiers: E = Value above quantitation range, Value estimated.

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D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

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Collected : 2/11/2014 1:30:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-002

Client Sample ID: SB-2

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L		<u>Analyst:</u> GKB			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Dichlorodifluoromethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Ethylbenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Isopropylbenzene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Methyl Acetate	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Methyl tert-butyl ether	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Methylcyclohexane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Methylene chloride	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Styrene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Tetrachloroethene	990	D	120	µg/Kg-dry	02/19/2014 1:38 PM	Container-01 of 04	
Toluene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
trans-1,2-Dichloroethene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
trans-1,3-Dichloropropene	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Trichloroethene	130		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Trichlorofluoromethane	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Vinyl chloride	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Xylene (total)	< 13		1	µg/Kg-dry	02/18/2014 4:41 PM	Container-03 of 04	
Surr: 1,2-Dichloroethane-d4	91.2		1	%REC	Limit 33-150	02/18/2014 4:41 PM	Container-03 of 04
Surr: 4-Bromofluorobenzene	90.8		1	%REC	Limit 34-145	02/18/2014 4:41 PM	Container-03 of 04
Surr: Toluene-d8	111		1	%REC	Limit 43-157	02/18/2014 4:41 PM	Container-03 of 04

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-002
Client Sample ID: SB-2

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4-Dichlorophenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4-Dimethylphenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4-Dinitrophenol	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,4-Dinitrotoluene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2,6-Dinitrotoluene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Chloronaphthalene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Chlorophenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Methylnaphthalene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Methylphenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
2-Nitrophenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
3-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Chloroaniline	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Methylphenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
4-Nitrophenol	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Acenaphthene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Acenaphthylene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Acetophenone	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Anthracene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Atrazine	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Benzaldehyde	< 390	c	1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Benzo(a)anthracene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-002

Client Sample ID: SB-2

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Benzo(b)fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Benzo(k)fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Butyl benzyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Caprolactam	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Carbazole	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Chrysene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Dibenzofuran	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Diethylphthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Dimethylphthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Di-n-butyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Di-n-octyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Fluorene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Hexachlorobenzene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Hexachlorobutadiene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 390	c	1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Hexachloroethane	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Isophorone	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Naphthalene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Nitrobenzene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 390	c	1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Pentachlorophenol	< 980		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Phenanthrene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01
Phenol	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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LABORATORY RESULTS

Results for the samples and analytes requested

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Advanced Cleanup Technologies

960 South Broadway, Suite 100
 Hicksville, NY 11801

Attn To : Karen Friedman

Collected : 2/11/2014 1:30:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

Lab No. : 1402685-002

Client Sample ID: SB-2

Sample Information:

Type : Soil

Origin:

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Pyrene	< 390		1	µg/Kg-dry	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 1,2-Dichlorobenzene-d4	73.6		1	%REC Limit 20-130	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 2,4,6-Tribromophenol	102		1	%REC Limit 19-122	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 2-Chlorophenol-d4	75.4		1	%REC Limit 20-130	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 2-Fluorobiphenyl	78.3		1	%REC Limit 30-115	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 2-Fluorophenol	74.2		1	%REC Limit 25-121	02/20/2014 2:37 PM	Container-01 of 01	
Surr: 4-Terphenyl-d14	63.8		1	%REC Limit 18-137	02/20/2014 2:37 PM	Container-01 of 01	
Surr: Nitrobenzene-d5	73.1		1	%REC Limit 23-120	02/20/2014 2:37 PM	Container-01 of 01	
Surr: Phenol-d5	73.5		1	%REC Limit 24-113	02/20/2014 2:37 PM	Container-01 of 01	
<u>Analytical Method:</u> SW7471 :		<u>Prep Method:</u> SW7471		<u>Prep Date:</u> 2/19/2014 11:58:47 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Mercury	0.87		1	mg/Kg-dry	02/19/2014 3:39 PM	Container-01 of 01	
<u>Analytical Method:</u> D2216 :						<u>Analyst:</u> EM	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Percent Moisture	14.9		1	wt%	02/17/2014 6:47 AM	Container-01 of 01	

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Date Reported : 2/20/2014



Client Services Manager

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Advanced Cleanup Technologies

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Attn To : Karen Friedman

Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

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LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW6010 :		<u>Prep Method:</u> SW3050A		<u>Prep Date:</u> 2/18/2014 10:04:24 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	5,040		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Antimony	< 7.05		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Arsenic	< 1.18		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Barium	33.5		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Beryllium	< 0.59		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Cadmium	0.93		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Calcium	503		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Chromium	10.3		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Cobalt	< 5.88		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Copper	8.44		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Iron	13,700		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Lead	61.3		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Magnesium	1,190		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Manganese	90.3		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Nickel	< 4.70		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Potassium	390		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Selenium	3.10		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Silver	< 1.18		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Sodium	36.9		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Thallium	< 1.18		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Vanadium	15.2		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01
Zinc	36.0		1	mg/kg-dry	02/19/2014 1:24 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
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LABORATORY RESULTS

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Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

Lab No. : 1402685-003

Client Sample ID: SB-3 (14-16)

Sample Information:

Type : Soil

Origin:

Analytical Method: SW8081/8082 :		Prep Method: SW3545		Prep Date: 2/17/2014 10:00:36 AM		Analyst: JS	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:	
4,4'-DDD	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
4,4'-DDE	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
4,4'-DDT	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Aldrin	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
alpha-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
alpha-Chlordane	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Aroclor 1016	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1221	< 79		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1232	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1242	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1248	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1254	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
Aroclor 1260	< 39		1	µg/Kg-dry	02/19/2014 5:47 PM	Container-01 of 01	
beta-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
delta-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Dieldrin	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endosulfan I	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endosulfan II	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endosulfan sulfate	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endrin	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endrin aldehyde	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Endrin ketone	< 3.9		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
gamma-BHC	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
gamma-Chlordane	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Heptachlor	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Heptachlor epoxide	< 2.0		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Methoxychlor	< 20		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Toxaphene	< 200		1	µg/Kg-dry	02/19/2014 9:40 PM	Container-01 of 01	
Surr: Decachlorobiphenyl	41.0		1	%REC	Limit 30-150	02/19/2014 5:47 PM	Container-01 of 01
Surr: Decachlorobiphenyl	31.3		1	%REC	Limit 30-150	02/19/2014 9:40 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	25.5	S	1	%REC	Limit 30-150	02/19/2014 9:40 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	24.2	S	1	%REC	Limit 30-150	02/19/2014 5:47 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

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S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003

Client Sample ID: SB-3 (14-16)

NOTES:

Surrogate recovery slightly low for one of the two surrogates. Data accepted based on the recovery of the remaining surrogate.

Qualifiers: E = Value above quantitation range, Value estimated.
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Date Reported : 2/20/2014

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LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L		<u>Analyst:</u> GKB	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>
1,1,1-Trichloroethane	110		1	µg/Kg-dry	02/18/2014 5:12 PM
1,1,2,2-Tetrachloroethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	39		1	µg/Kg-dry	02/18/2014 5:12 PM
1,1,2-Trichloroethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,1-Dichloroethane	12		1	µg/Kg-dry	02/18/2014 5:12 PM
1,1-Dichloroethene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2,4-Trichlorobenzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2-Dibromo-3-chloropropane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2-Dibromoethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2-Dichlorobenzene	37		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2-Dichloroethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,2-Dichloropropane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,3-Dichlorobenzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
1,4-Dichlorobenzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
2-Butanone	15	c	1	µg/Kg-dry	02/18/2014 5:12 PM
2-Hexanone	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
4-Methyl-2-pentanone	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Acetone	72	c	1	µg/Kg-dry	02/18/2014 5:12 PM
Benzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Bromodichloromethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Bromoform	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Bromomethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Carbon disulfide	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Carbon tetrachloride	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Chlorobenzene	47		1	µg/Kg-dry	02/18/2014 5:12 PM
Chloroethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Chloroform	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Chloromethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
cis-1,2-Dichloroethene	3,300	D	4513	µg/Kg-dry	02/19/2014 2:08 PM
cis-1,3-Dichloropropene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Cyclohexane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM
Dibromochloromethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L		<u>Analyst:</u> GKB			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Dichlorodifluoromethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Ethylbenzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Isopropylbenzene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Methyl Acetate	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Methyl tert-butyl ether	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Methylcyclohexane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Methylene chloride	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Styrene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Tetrachloroethene	170,000	D	4513	µg/Kg-dry	02/19/2014 2:08 PM	Container-01 of 04	
Toluene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
trans-1,2-Dichloroethene	21		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
trans-1,3-Dichloropropene	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Trichloroethene	5,000	D	4513	µg/Kg-dry	02/19/2014 2:08 PM	Container-01 of 04	
Trichlorofluoromethane	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Vinyl chloride	120	c	1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Xylene (total)	< 11		1	µg/Kg-dry	02/18/2014 5:12 PM	Container-02 of 04	
Surr: 1,2-Dichloroethane-d4	92.8		1	%REC	Limit 33-150	02/18/2014 5:12 PM	Container-02 of 04
Surr: 4-Bromofluorobenzene	88.6		1	%REC	Limit 34-145	02/18/2014 5:12 PM	Container-02 of 04
Surr: Toluene-d8	124		1	%REC	Limit 43-157	02/18/2014 5:12 PM	Container-02 of 04

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LABORATORY RESULTS

Results for the samples and analytes requested

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Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4-Dichlorophenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4-Dimethylphenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4-Dinitrophenol	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,4-Dinitrotoluene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2,6-Dinitrotoluene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Chloronaphthalene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Chlorophenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Methylnaphthalene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Methylphenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
2-Nitrophenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
3-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Chloroaniline	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Methylphenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Nitroaniline	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
4-Nitrophenol	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Acenaphthene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Acenaphthylene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Acetophenone	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Anthracene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Atrazine	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Benzaldehyde	< 390	c	1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Benzo(a)anthracene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Benzo(b)fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Benzo(k)fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Butyl benzyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Caprolactam	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Carbazole	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Chrysene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Dibenzofuran	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Diethylphthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Dimethylphthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Di-n-butyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Di-n-octyl phthalate	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Fluoranthene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Fluorene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Hexachlorobenzene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Hexachlorobutadiene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 390	c	1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Hexachloroethane	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Isophorone	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Naphthalene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Nitrobenzene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 390	c	1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Pentachlorophenol	< 980		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Phenanthrene	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01
Phenol	< 390		1	µg/Kg-dry	02/20/2014 3:04 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = ELAP / NELAC does not offer certification for this analyte

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J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound



Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/11/2014 3:15:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-003
Client Sample ID: SB-3 (14-16)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Pyrene	< 390		1	µg/Kg-dry		02/20/2014 3:04 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	83.8		1	%REC	Limit 20-130	02/20/2014 3:04 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	124	S	1	%REC	Limit 19-122	02/20/2014 3:04 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	89.2		1	%REC	Limit 20-130	02/20/2014 3:04 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	90.9		1	%REC	Limit 30-115	02/20/2014 3:04 PM	Container-01 of 01
Surr: 2-Fluorophenol	85.9		1	%REC	Limit 25-121	02/20/2014 3:04 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	75.2		1	%REC	Limit 18-137	02/20/2014 3:04 PM	Container-01 of 01
Surr: Nitrobenzene-d5	83.9		1	%REC	Limit 23-120	02/20/2014 3:04 PM	Container-01 of 01
Surr: Phenol-d5	86.3		1	%REC	Limit 24-113	02/20/2014 3:04 PM	Container-01 of 01

<u>Analytical Method:</u> SW7471 :		<u>Prep Method:</u> SW7471		<u>Prep Date:</u> 2/19/2014 11:58:47 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Mercury	1.06		1	mg/Kg-dry		02/19/2014 3:45 PM	Container-01 of 01

<u>Analytical Method:</u> D2216 :						<u>Analyst:</u> EM	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Percent Moisture	14.9		1	wt%		02/17/2014 6:48 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.
 B = Found in Blank
 D.F. = Dilution Factor D = Results for Dilution
 H = Received/analyzed outside of analytical holding time
 + = ELAP / NELAC does not offer certification for this analyte
 c = Calibration acceptability criteria exceeded for this analyte
 r = Reporting limit > MDL and < LOQ, Value estimated.
 J = Estimated value - below calibration range
 S = Recovery exceeded control limits for this analyte
 N = Indicates presumptive evidence of compound

Date Reported : 2/20/2014



Client Services Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004

Client Sample ID: SB-4 (1-3)

<u>Analytical Method:</u> SW6010 :		<u>Prep Method:</u> SW3050A		<u>Prep Date:</u> 2/18/2014 10:04:24 AM		<u>Analyst:</u> CGZ
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Aluminum	3,410		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Antimony	< 6.20		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Arsenic	2.74		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Barium	< 20.7		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Beryllium	< 0.52		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Cadmium	0.67		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Calcium	74,800		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Chromium	8.12		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Cobalt	< 5.16		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Copper	25.5		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Iron	9,200		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Lead	16.7		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Magnesium	39,800		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Manganese	150		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Nickel	6.75		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Potassium	791		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Selenium	1.90		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Silver	< 1.03		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Sodium	343		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Thallium	< 1.03		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Vanadium	26.4		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01
Zinc	30.0		1	mg/kg-dry	02/19/2014 1:29 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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Client Services Manager

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LABORATORY RESULTS

Results for the samples and analytes requested

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Advanced Cleanup Technologies

960 South Broadway, Suite 100
 Hicksville, NY 11801

Attn To : Karen Friedman

Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

Lab No. : 1402685-004

Client Sample ID: SB-4 (1-3)

Sample Information:

Type : Soil

Origin:

Analytical Method: SW8081/8082 :		Prep Method: SW3545		Prep Date: 2/17/2014 10:00:36 AM		Analyst: JS
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
4,4'-DDD	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
4,4'-DDE	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
4,4'-DDT	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Aldrin	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
alpha-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
alpha-Chlordane	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Aroclor 1016	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1221	< 69		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1232	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1242	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1248	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1254	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
Aroclor 1260	< 34		1	µg/Kg-dry	02/19/2014 6:04 PM	Container-01 of 01
beta-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
delta-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Dieldrin	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endosulfan I	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endosulfan II	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endosulfan sulfate	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endrin	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endrin aldehyde	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Endrin ketone	< 3.4		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
gamma-BHC	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
gamma-Chlordane	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Heptachlor	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Heptachlor epoxide	< 1.8		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Methoxychlor	< 18		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Toxaphene	< 180		1	µg/Kg-dry	02/19/2014 10:47 PM	Container-01 of 01
Surr: Decachlorobiphenyl	42.7		1	%REC Limit 30-150	02/19/2014 6:04 PM	Container-01 of 01
Surr: Decachlorobiphenyl	82.3		1	%REC Limit 30-150	02/19/2014 10:47 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	52.0		1	%REC Limit 30-150	02/19/2014 10:47 PM	Container-01 of 01
Surr: Tetrachloro-m-xylene	72.0		1	%REC Limit 30-150	02/19/2014 6:04 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

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Client Services Manager

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This report shall not be reproduced except in full, without the written approval of the laboratory.

Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004
Client Sample ID: SB-4 (1-3)

Analytical Method: SW8260 :		Prep Method: 5035A-L		Analyst: GKB	
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed: Container:
1,1,1-Trichloroethane	2,400	D	7353	µg/Kg-dry	02/19/2014 2:38 PM Container-01 of 04
1,1,2,2-Tetrachloroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,1,2-Trichloro-1,2,2-trifluoroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,1,2-Trichloroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,1-Dichloroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,1-Dichloroethene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2,4-Trichlorobenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2-Dibromo-3-chloropropane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2-Dibromoethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2-Dichlorobenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2-Dichloroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,2-Dichloropropane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,3-Dichlorobenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
1,4-Dichlorobenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
2-Butanone	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
2-Hexanone	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
4-Methyl-2-pentanone	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Acetone	< 14	c	1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Benzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Bromodichloromethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Bromoform	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Bromomethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Carbon disulfide	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Carbon tetrachloride	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Chlorobenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Chloroethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Chloroform	18		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Chloromethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
cis-1,2-Dichloroethene	76		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
cis-1,3-Dichloropropene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Cyclohexane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04
Dibromochloromethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM Container-01 of 04

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H = Received/analyzed outside of analytical holding time

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c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

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Client Services Manager

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004

Client Sample ID: SB-4 (1-3)

<u>Analytical Method:</u> SW8260 :		<u>Prep Method:</u> 5035A-L		<u>Analyst:</u> GKB			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>	
Dichlorodifluoromethane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Ethylbenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Isopropylbenzene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Methyl Acetate	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Methyl tert-butyl ether	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Methylcyclohexane	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Methylene chloride	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Styrene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Tetrachloroethene	260,000	D	7353	µg/Kg-dry	02/19/2014 2:38 PM	Container-01 of 04	
Toluene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
trans-1,2-Dichloroethene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
trans-1,3-Dichloropropene	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Trichloroethene	52,000	D	7353	µg/Kg-dry	02/19/2014 2:38 PM	Container-01 of 04	
Trichlorofluoromethane	< 14	c	1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Vinyl chloride	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Xylene (total)	< 14		1	µg/Kg-dry	02/18/2014 5:43 PM	Container-01 of 04	
Surr: 1,2-Dichloroethane-d4	99.8		1	%REC	Limit 33-150	02/18/2014 5:43 PM	Container-01 of 04
Surr: 4-Bromofluorobenzene	83.8		1	%REC	Limit 34-145	02/18/2014 5:43 PM	Container-01 of 04
Surr: Toluene-d8	136		1	%REC	Limit 43-157	02/18/2014 5:43 PM	Container-01 of 04

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004

Client Sample ID: SB-4 (1-3)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
1,1'-Biphenyl	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,2'-oxybis(1-chloropropane)	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4,5-Trichlorophenol	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4-Dichlorophenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4-Dimethylphenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4-Dinitrophenol	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,4-Dinitrotoluene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2,6-Dinitrotoluene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Chloronaphthalene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Chlorophenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Methylnaphthalene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Methylphenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
2-Nitrophenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
3,3'-Dichlorobenzidine	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
3-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Bromophenyl-phenylether	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Chloroaniline	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Chlorophenyl-phenylether	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Methylphenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Nitroaniline	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
4-Nitrophenol	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Acenaphthene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Acenaphthylene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Acetophenone	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Anthracene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Atrazine	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Benzaldehyde	< 340	c	1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Benzo(a)anthracene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01

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H = Received/analyzed outside of analytical holding time

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Advanced Cleanup Technologies

**960 South Broadway, Suite 100
 Hicksville, NY 11801**

Attn To : Karen Friedman

Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004
Client Sample ID: SB-4 (1-3)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Benzo(a)pyrene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Benzo(b)fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Benzo(g,h,i)perylene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Benzo(k)fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Bis(2-chloroethoxy)methane	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Bis(2-chloroethyl)ether	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Bis(2-ethylhexyl)phthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Butyl benzyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Caprolactam	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Carbazole	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Chrysene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Dibenzo(a,h)anthracene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Dibenzofuran	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Diethylphthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Dimethylphthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Di-n-butyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Di-n-octyl phthalate	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Fluoranthene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Fluorene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Hexachlorobenzene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Hexachlorobutadiene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Hexachlorocyclopentadiene	< 340	c	1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Hexachloroethane	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Indeno(1,2,3-cd)pyrene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Isophorone	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Naphthalene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Nitrobenzene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
N-Nitroso-di-n-propylamine	< 340	c	1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
N-Nitrosodiphenylamine	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Pentachlorophenol	< 860		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Phenanthrene	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01
Phenol	< 340		1	µg/Kg-dry	02/20/2014 3:32 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

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Advanced Cleanup Technologies

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 Hicksville, NY 11801**

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Collected : 2/12/2014 1:35:00 PM

Received : 2/14/2014 10:00:00 AM 7610-BKNY

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Sample Information:

Type : Soil

Origin:

Lab No. : 1402685-004
Client Sample ID: SB-4 (1-3)

<u>Analytical Method:</u> SW8270 :		<u>Prep Method:</u> SW3545		<u>Prep Date:</u> 2/18/2014 5:08:34 PM		<u>Analyst:</u> SH	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Pyrene	600		1	µg/Kg-dry		02/20/2014 3:32 PM	Container-01 of 01
Surr: 1,2-Dichlorobenzene-d4	68.1		1	%REC	Limit 20-130	02/20/2014 3:32 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	91.5		1	%REC	Limit 19-122	02/20/2014 3:32 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	69.6		1	%REC	Limit 20-130	02/20/2014 3:32 PM	Container-01 of 01
Surr: 2-Fluorobiphenyl	74.7		1	%REC	Limit 30-115	02/20/2014 3:32 PM	Container-01 of 01
Surr: 2-Fluorophenol	62.5		1	%REC	Limit 25-121	02/20/2014 3:32 PM	Container-01 of 01
Surr: 4-Terphenyl-d14	90.7		1	%REC	Limit 18-137	02/20/2014 3:32 PM	Container-01 of 01
Surr: Nitrobenzene-d5	65.7		1	%REC	Limit 23-120	02/20/2014 3:32 PM	Container-01 of 01
Surr: Phenol-d5	67.1		1	%REC	Limit 24-113	02/20/2014 3:32 PM	Container-01 of 01
<u>Analytical Method:</u> SW7471 :		<u>Prep Method:</u> SW7471		<u>Prep Date:</u> 2/19/2014 11:58:47 AM		<u>Analyst:</u> HT	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Mercury	< 0.20		1	mg/Kg-dry		02/19/2014 3:47 PM	Container-01 of 01
<u>Analytical Method:</u> D2216 :						<u>Analyst:</u> EM	
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		<u>Analyzed:</u>	<u>Container:</u>
Percent Moisture	3.2		1	wt%		02/17/2014 6:49 AM	Container-01 of 01

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Date Reported : 2/20/2014



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PACE ANALYTICAL
575 Broad Hollow Road
Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
Website: www.pacelabs.com

Sample Receipt Checklist

Client Name **ACT-ECO**

Date and Time Received: **2/14/2014 10:00:00 AM**

Work Order Number: **1402685**

RcptNo: **1**

Received by **Linda Siciliano**

Completed by:

Reviewed by:

Completed Date: 2/14/2014 10:43:58 AM

Reviewed Date: 2/19/2014 4:12:52 PM

Carrier name: Client

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Are matrices correctly identified on Chain of custody?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Is it clear what analyses were requested?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Were correct preservatives used and noted?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Preservative added to bottles:				
Sample Condition?	Intact <input checked="" type="checkbox"/>	Broken <input type="checkbox"/>	Leaking <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Were container labels complete (ID, Pres, Date)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Was an attempt made to cool the samples?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
All samples received at a temp. of > 0° C to 6.0° C?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Response when temperature is outside of range:				
Sample Temp. taken and recorded upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	To 4.2 ° <input type="checkbox"/>	
Water - Were bubbles absent in VOC vials?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No Vials <input checked="" type="checkbox"/>	
Water - Was there Chlorine Present?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No Water <input checked="" type="checkbox"/>	
Are Samples considered acceptable?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Custody Seals present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
Airbill or Sticker?	Air Bil <input type="checkbox"/>	Sticker <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	
Airbill No:				

Case Number:

SDG:

SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☒ NA Person Contacted:
Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:
Client Instructions:
Date Contacted: Contacted By:
Regarding:
Comments:
CorrectiveAction: