PREFERRED ENVIRONMENTAL SERVICES
323 Merrick Avenue - North Merrick, New York 11566 Tel: (516) 546-1100 Fax : (516) 213-8156

April 23, 2018

Mr. Ira Wechsler
Prestone Printing Co., Inc.

Re: **Limited Soil Vapor Intrusion & Soil Sampling Summary Report**
Prestone Printing Co., Inc.
4750 30th Street, Long Island City, New York

Dear Mr. Wechsler:

This report summarize the findings of the Limited Soil Vapor Intrusion (SVI) and Soil Sampling Study conducted by Preferred Environmental Services (Preferred) on April 2 & 3, 2018, at the commercial property located at 4750 30th Street, Long Island City, New York (Subject Property) (**Figures 1 -3**). This Study was performed in order to evaluate Sub-Slab Soil Vapor and indoor air quality at the Subject Property. The SVI portion of the investigatory work was conducted in accordance with the requirements set forth in the October 2006 New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York.*

Site Description and Background

The Subject Property is currently improved with a one-story commercial building (offices and warehouse). The current occupant is a printing press, Prestone Printing Co., Inc. (Prestone). The building had previously been occupied by the Milton Paper Company, and prior to that was occupied a chemical warehouse and shellac company (Philip A. Hunt Chemical Corporation).

A Phase I Environmental Site Assessment (ESA) was completed by Whitestone Associates Inc. (Whitestone) in August 2005, which identified several Recognized Environmental Concerns (RECs). One such REC was the presence of an out-of-service (OOS) empty 3,000-gallon fuel oil Underground Storage Tank (UST) in the southern portion of the Subject Property. An additional REC was the identified presence of a former dry-cleaner situated adjacent to the Subject Property to the north. Based upon the results of this Phase I ESA, a Limited Phase II ESA was completed by Whitestone in September 2005 (**Attachment A**), which included the installation of six (6) soil borings (**Figure 4**); two (2) adjacent to the OOS UST, and four (4) in a storage room which was identified in a prior Phase I ESA.

The issue of former UST is being addressed by PAL Environmental Services. Preferred was engaged to perform a Limited SVI Study to assess subsurface soil vapor conditions relative to the REC posed by the former drycleaners' situated adjacent and to the north of the Subject Property, detailed below.

Soil Vapor Intrusion (SVI) Study - April 2 & 3, 2018

Preferred conducted a limited SVI Study on April 2 and 3, 2018. The SVI Study included the collection of one (1) sub-slab soil vapor sample (SSV-1), one (1) indoor air sample (IA-1) and one (1) proximate soil sample (SB-1 at 1.5-2 feet bgs). Sample locations are depicted on **Figure 4**.

The sub-slab soil vapor sample was collected from a temporary soil vapor probe. In order to install the temporary vapor probe, Preferred cored through the concrete slab utilizing an electric powered rotary hammer drill to create a small diameter borehole, within which the vapor probe was installed. The temporary vapor probe was constructed of 3/8th-inch diameter food-grade polyethylene tubing installed two (2) -inches below

the concrete slab. The area surrounding the tubing at the point where it entered the concrete slab was sealed with hydrated bentonite to create an air-tight seal.

SSV-1 and IA-1 were collected from within the northern portion of the building which is utilized as a storage warehouse and process area for the printing press. A separate core apparatus was used to install a boring via a manually operated stainless steel hand auger for the collection of a soil sample. Soil boring (SB-1) was also installed within the northwestern portion of the building within the aforementioned warehouse and process area.

Prior to sampling, an NYSDOH Indoor Air Sampling Questionnaire and Inventory form (see Attachment B) was completed by Preferred's sampling personnel. It should be noted that no chemicals were observed to be stored on-site, however, it is known that cleaning solvents are used on most printing presses.

The SVI Sampling was conducted in accordance with the requirements set forth in the October 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion. The annular space within the sub-slab vapor implant tubing was purged a minimum of one to three volumes of soil gas using a personal sampling pump. During purging and sampling, the flow rate did not exceed 0.2 liters per minute. A pre-set regulator and dedicated summa canister was used to procure each sub-slab or soil vapor sample. The regulator was set to collect the indoor sub-slab sample over a 24-hour period and ensured a flow rate less than 0.2 liters per minute. Sufficient volume was collected to achieve the detection limits required to evaluate the data relative to the October 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion.

In addition, a helium tracer gas was introduced into the annular space between the SSV tubing and a sealed enclosure (in the form of a 5-gallon plastic bucket, sealed with hydrated bentonite) to confirm the seal between the SSV tubing and the slab floor. A helium detector was utilized to screen for the presence of helium in the sample tubing during collection. No helium was reported as detected. After collection, the SSV sample location was field screened with a Photoionization Detector (PID) to provide real time data; this information was recorded in the Soil Vapor Sample Log Sheet (see **Attachment B**).

Upon completion of the sample collection, the summa canisters were transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory (York Analytical Laboratories) for Volatile Organic Compound (VOC) analysis by EPA Method TO-15 low level methodology.

The Indoor Air (IA) Sample was also collected utilizing a pre-set air flow regulator and dedicated summa canister under appropriate vacuum. The canister associated with the sample was set at a height of 3 to 5 feet above relative grade surface elevation as to obtain a sample within the representative breathing zone. The IA sample was collected from a location proximate to the sub-slab soil vapor sample (see attached **Figure 4**). The regulator for the IA sample was set to collect the sample over a 24-hour period and calibrated to ensure a flow rate less than 0.2 liters per minute. As with the sub-slab vapor sample, sufficient volume was collected to achieve the detection limits required to evaluate the data relative to the October 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion.

During sampling activities a sample log sheet was completed for each sample summarizing the following:

a. sample identification,
b. date and time of sample collection,
c. sampling depth/height,
d. identity of samplers,
e. sampling methods and devices,
f. purge volumes,
g. volume of soil vapor extracted,
h. if canisters used, the vacuum before and after samples collected,
I. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
j. chain of custody protocols and records used to track samples from sampling point to analysis.

The SSV and IA samples were both submitted for laboratory analysis for VOCs by EPA Method TO-15 low level methodology. The summa canisters were transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory (York Analytical Laboratories). Laboratory data summary sheets are included as **Attachment C**.

Soil Vapor Intrusion Sample Analytical Testing Results

Although there are no standards or guidance values to evaluate the reported concentrations of VOCs in sub-slab vapor or outdoor air samples, the NYSDOH has established Indoor Air Guidance Values for three (3) non-aromatic compounds, tetrachloroethylene (PCE) at 30 ug/m^3, trichloroethylene (TCE) at 2 ug/m^3, and methylene chloride at 60 ug/m^3. Additionally, a total of seven (7) related VOCs (vinyl chloride (Matrix C), carbon tertachloride, trichloroethylene, 1,1-dichloroethene, and cis-1,2-Dichloroethene (Matrix A); and methylene chloride, 1,1,1 Trichloroethane (TCA) and Tetrachloroethylene (PCE) (Matrix B) have guidance values associated with the NYSDOH Soil Vapor/Indoor Air Decision Matrices, as established in the supplemental NYSDOH correspondence dated June 25, 2007 and updated May 2017.

These matrices were developed by the NYSDOH to allow for decision-making relative to actions required to be undertaken with respect to intrusion from sub-slab soil vapors into the interior of buildings. In addition to these select Air Guidance Values, the results of the laboratory analysis were also compared to NYSDOH recommended immediate action levels established in a correspondence dated August and September 2015. Finally, the analytical results were also compared to the Summary of Indoor and Outdoor Levels of VOCs from Fuel Oil Heated Homes in New York State 1997 to 2003 (unpublished NYSDOH, Bureau of Toxic Substances Assessment) as shown on **Table 1** relative to aromatic (petroleum-related) compounds (benzene, toluene, ethylbenzene and xylenes (BTEX).

As indicated in **Table 1**, several petroleum-related VOCs (e.g., 2-Butanone, 1,24-Trimethylbenzene, m/p-Xylene, etc.) were detected in the sub-slab soil vapor and indoor air samples. In addition to the petroleum-related VOCs, other chlorinated-solvent VOCs (e.g., cis-1,2-Dichloroethylene (DCE), PCE, TCE) were detected at elevated concentrations in the soil vapor sample (SSV-1) and/or the indoor air sample (IA-1). Generally, with respect to the potential for vapor intrusion, the NYSDOH considers the most significant VOCs to be these chlorinated solvent compounds (Carbon Tetrachloride, PCE and TCE).

1,2,4-Trimethylbenzene was detected at elevated concentrations (550 ug/m3 and 1,300 ug/m3) in both sub-soil vapor and indoor air samples, respectively. In addition, acetone was also detected at elevated concentrations (between 220 ug/m3 and 390 ug/m3) in both samples. Other compounds were present such as chloroform and cyclohexane but no specific standards or guidance values are available relative to same. The use of these chemicals during normal business operation is likely the source of that detected in the indoor air samples.

Of most significance is that the analysis of the sub-slab soil vapor and indoor air samples reported PCE concentrations of 17,000 ug/m^3 in SSV-1, and 1,700 ug/m^3 in IA-1, respectively. TCE (a breakdown product of PCE) was also reported at a concentration of 98 ug/m^3 in SSV-1, and 15 ug/m^3 in IA-1, respectively. These two (2) compounds were present in the indoor air at concentrations in exceedance of the NYSDOH Immediate (PCE) or Guidance Value specific to indoor air (TCE). Further, it was confirmed that both of these compounds were present in the sub-slab soil vapor samples as well and reported at elevated concentrations.

Evaluation of Air Analytical Results

The concentrations of PCE and TCE, in the sub-slab soil vapor and IA samples were compared to the three (3) available NYSDOH Soil Vapor/Indoor Air Matrices A, B and C (**Attachment C)** included in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York. These matrices were developed by the NYSDOH to allow for decision-making relative to actions required to be undertaken with respect to vapor intrusion from sub-slab soil vapors into the interior of buildings.

Based upon the reported concentrations of PCE (17,000 ug/m^3) within the SSV-1 sample, compared to the indoor air concentrations of 1,700 ug/m^3 in the IA-1 sample, review of the NYSDOH Soil Vapor/Indoor Air Matrix B indicates that the NYSDOH recommends that "Mitigation", be performed Further, the concentrations of PCE (1,700 ug/m^3) in indoor air is elevated above its associated NYSDOH recommended guidance value of 30 ug/m^3,and immediate action level of 300 ug/m^3.

Based upon the reported concentrations of TCE (98 ug/m^3) within the SSV-1 sample, compared to the indoor air concentrations of 15 ug/m^3 in the IA-1 sample, review of the NYSDOH Soil Vapor/Indoor Air Matrix A indicates that the NYSDOH again recommends "Mitigation" be performed. Although this concentration of TCE is above its associated NYSDOH Recommended Air Guidance Value of 2 ug/m^3, it is below the NYSDOH recommended immediate action level of 20 ug/m^3.

Based upon the reported concentrations of Carbon Tetrachloride (0.52 ug/m^3) within the SSV-1 sample, compared to the indoor air concentrations of 0.27 ug/m^3 in the IA-1 sample, review of the NYSDOH Soil Vapor/Indoor Air Matrix A indicates that the NYSDOH recommends "No Further Action." Similarly, the reported concentrations of Cis-1,2 DCE (5 ug/m^3) and Methylene Chloride (25 ug/m^3) within the SSV-1 sample, compared to the indoor air concentrations, the NYSDOH Matrixes also recommends "No Further Action."

It should be noted that the Subject Property currently operates as a commercial printing facility and although

active chemical use and/or storage was not observed during the conduct of this investigation, it is understood that printing-related chemicals are utilized within the premises. As the use of printing-related chemicals is common within the premises as part of site operations, detected concentrations of PCE and TCE in the indoor air within the commercial facility (IA-1) should also be compared to applicable OSHA Permissible Exposure Limits (PELs), of 200,00 parts per billion (ppb) for each compound.

Soil Boring and Soil Sample Analytical Results

One (1) soil boring (SB-1) was installed within the northwest corner of the building to assess the quality of soils underlying the concrete slab. A two-inch diameter coring drill was previously utilized to core through the concrete slab, and a manually operated stainless steel hand auger was utilized to advance the soil boring to a terminal depth of two (2) feet below grade surface (bgs), at which point refusal was encountered. Soils encountered within soil boring SB-1 consisted generally of gray to black medium-grained sand mixed with gravel. Soils within boring SB-1 were continuously logged and field screened for field evidence of environmental impacts (e.g., visual and olfactory evidence, along with screening for the presence of VOCs utilizing a PID). Groundwater was not encountered within the SB-1 borehole.

Field screening of soils within SB-1 noted very limited field evidence of environmental impacts (e.g., odors and staining, PID responses up to 10.5 Parts Per Million (PPM) Response Units (RUs)) noted starting just below the concrete slab, and extending to the terminal depth of the soil boring. One (1) soil sample (SB-1 at 1.5-2 feet bgs) was collected and submitted for laboratory analysis for VOCs by EPA Method 8260. The soil sample was transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory (York Analytical Laboratories). Laboratory data summary sheets are included as **Attachment C**.

The soil sample analytical results were compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Soil Cleanup Objectives (SCOs), specifically the Commercial and Industrial Use SCOs, as summarized in the attached **Table 2**. Three (3) VOCs were reported above their associated laboratory Method Detection Limits (MDLs) in sample SB-1 (1.5-2 feet bgs), including 1,2,4-Trimethylbenzene at 3.6 µg/kg, Acetone at 77 µg/kg, and PCE at 100 µg/kg; none of which were reported at concentrations exceeding their associated Commercial or Industrial Use SCOs.

Summary and Conclusions

A limited Soil Vapor Intrusion Study was conducted on April 2 & 3, 2018, at the Prestone Printing Company located at 4750 30th Street, Long Island City, New York. A total of one (1) sub-slab soil vapor sample was collected, along with one (1) indoor air (IA) sample and one (1) soil sample. The analytical results of the two (2) samples were compared to the October 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion. The analytical results of the one (1) soil sample were compared to the NYSDEC Part 375 SCOs.

Upon comparison of the results of the laboratory analysis of the SSV and IA sample to the NYSDOH Soil Vapor/Indoor Air Matrices 1 and 2 it was determined that NYSDOH's recommends mitigation of these concentrations due to exceedances of the NYSDOH "Immediate Action Level", specific to indoor air due to PCE. The concentrations of TCE (15 ug/m^3) in indoor air is well above its associated NYSDOH Recommended Air Guidance Value of 2 ug/m^3, but below the NYSDOH recommended Immediate Action

Level of 20 ug/m^3. However, the elevated concentrations of PCE dictate the need for mitigation, in this instance.

The NYSDOH defines the need for mitigation as: *minimizing 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.*

Based upon the comparison of the soil sample (SB-1 at 1.5-2 feet bgs) results to the NYSDEC Part 375 SCOs for Commercial and Industrial Use, no VOCs were reported at concentrations exceeding their applicable SCOs. Therefore, based upon this one (1) soil sample, which represents a very limited soil investigation as part of the SVI, no specific findings could be made relative to VOC-impacts in or to soil.

Summary and Conclusions

The conduct of a limited Soil Vapor Intrusion Study at the Subject Property confirms that soil vapor intrusion of PCE and related breakdown chemicals appears to be occurring relative to the abutting property to the north, known to be operated as a dry-cleaner. Some of the chemical identified in indoor air are likely associated with the use of working quantities of cleaning chemicals.

However, based upon the concentrations of PCE identified in both indoor air and soil vapor, the NYSDOH regulatory indicates that immediate mitigation is recommended to be performed within the area tested. Based upon the limited nature of this investigation (only one (1) sub-slab and one (1) indoor air sample collected for laboratory analysis), prior to making any remedial/mitigation decisions, Preferred recommends that additional testing be conducted.

The notification requirements for occupants and tenants should be implemented by Preston until mitigation is completed. Preferred recommends that this report be submitted to the New York State Department of Environmental Conservation (NYSDEC) for their review and assistance in obtaining relief from the vapor intrusion that is occurring that may be attributed to the off-site property to the north. .

As always, please feel free to contact me with any questions or comments.

Sincerely,
PREFERRED ENVIRONMENTAL SERVICES

Jill S. Haimson

Jill S. Haimson, NYS P.G. #000075
President
Enc.

FIGURES

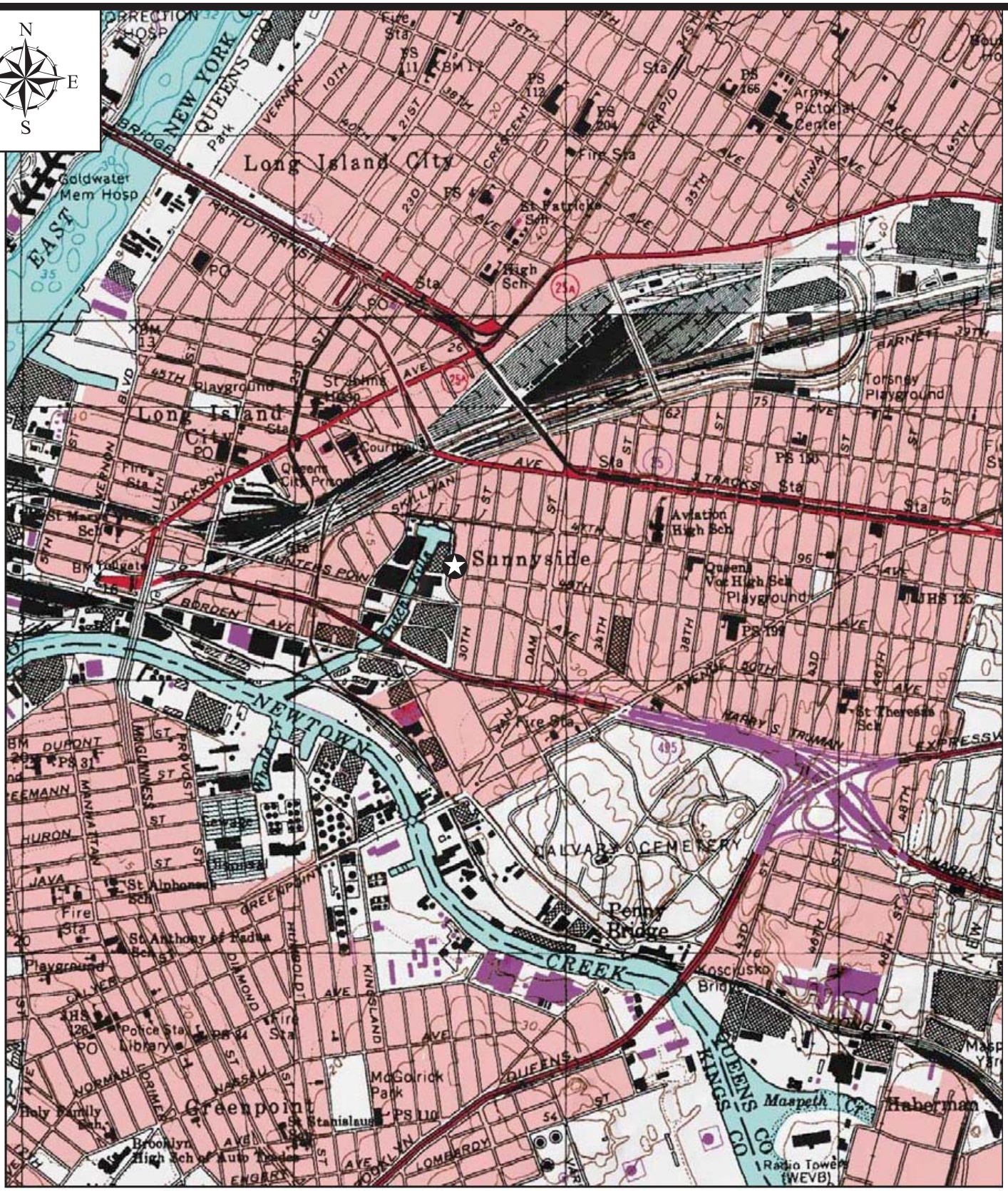

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Figure 1 - Site Location Map

PREFERRED ENVIRONMENTAL SERVICES

323 Merrick Avenue - North Merrick, New York 11566

Tel: (516) 546-1100 Fax : (516) 213-8156

-Approximate Location of Subject Property

Source: United States Geologic Survey Brooklyn Quadrangle

Site: 4750 30th Street
Long Island City, New York

Date: April 19, 2018

Figure 2 - Aerial Photograph

PREFERRED ENVIRONMENTAL SERVICES
323 Merrick Avenue - North Merrick, New York 11566
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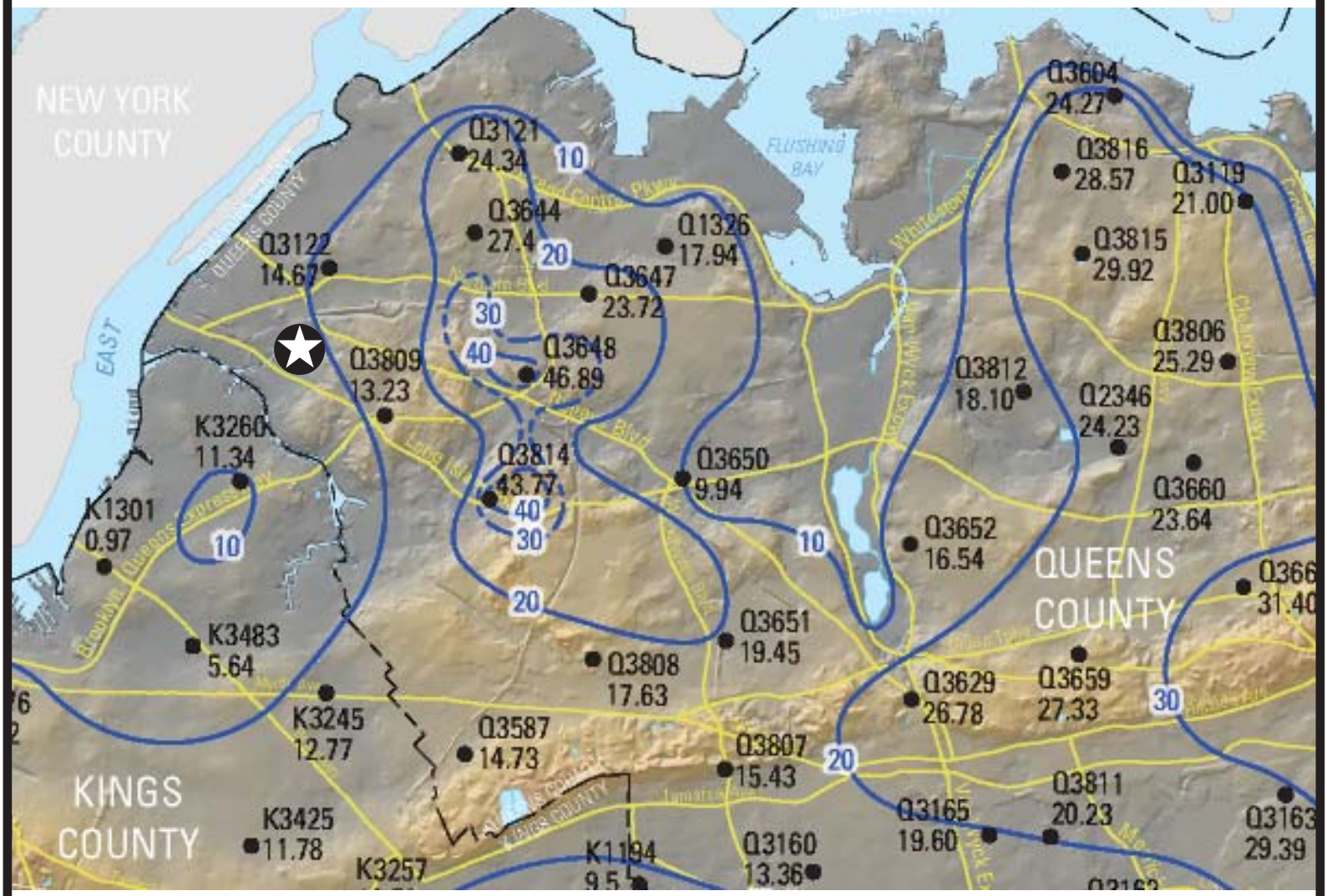
-Approximate Property Line

Source: Google Maps

Site: **4750 30th Street**
Long Island City, New York

Date: **April 19, 2018**



Scale

0 — 2 Miles

Source: **Water-Table and Potentiometric-Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers beneath Long Island, New York, March-April 2006**
By
Jack Monti Jr., and Ronald Busciolano
2009

Figure 3- Groundwater Elevation

PREFERRED ENVIRONMENTAL SERVICES
323 Merrick Avenue - North Merrick, New York 11566
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-Approximate Location of Subject Property

Site: **4750 30th Street**
Long Island City, New York

Date: **April 19, 2018**

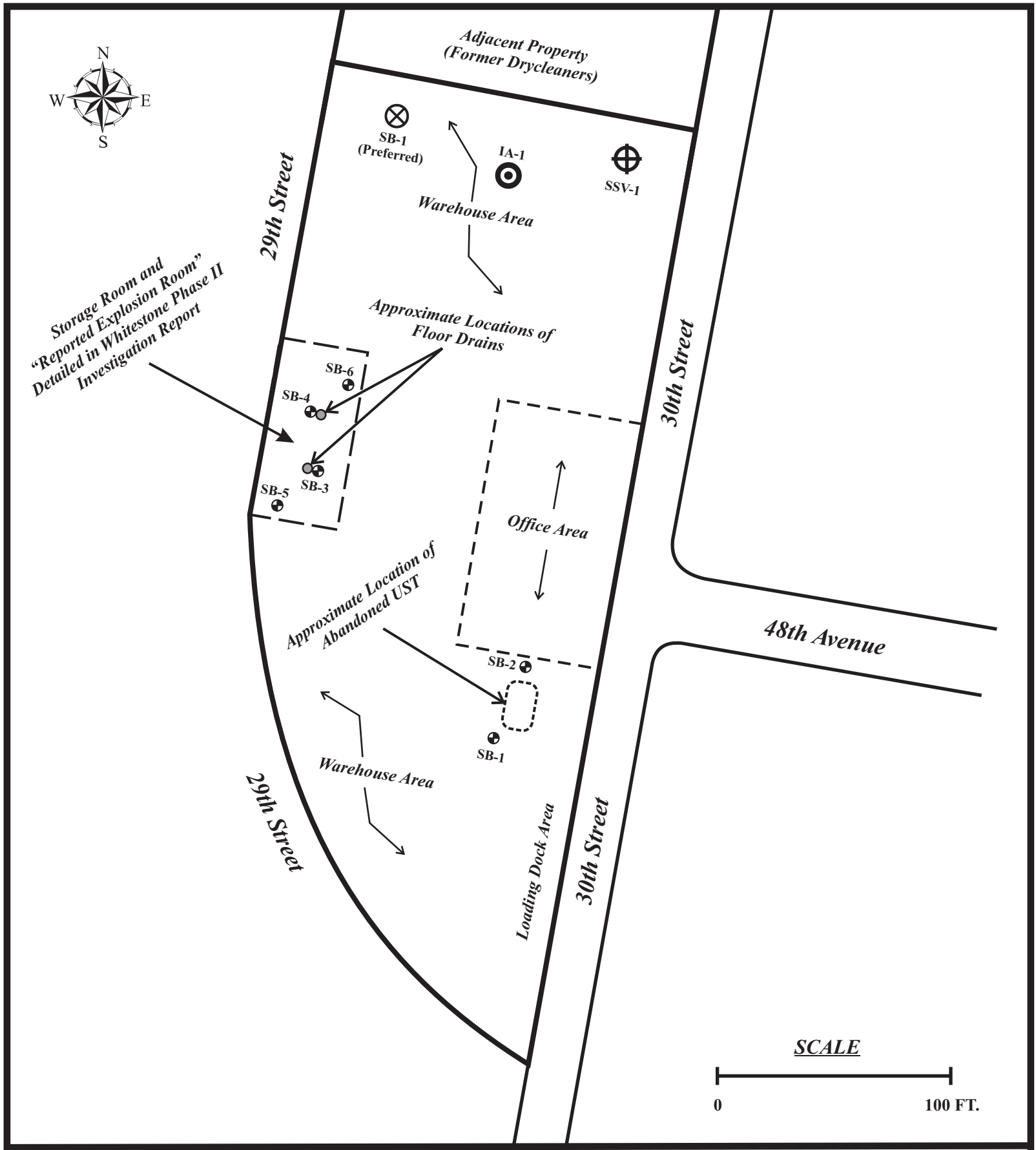

Figure 4 - Site Features and Sampling Locations

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323 Merrick Avenue - North Merrick, New York 11566
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- -Approximate Location of Soil Boring Installed by Whitestone Associates Inc. During September 2005 Phase II Investigation
- -Approximate Location of Soil Boring Installed by Preferred in April 2018
- -Approximate Location of Indoor Air Sample
- -Approximate Location of Sub-Slab Soil Vapor Sample

Site: 4750 30th Street
Long Island City, New York

Date: April 19, 2018

TABLES

TABLE 1
Summary of Volatile Organic Compounds Detected During Sub-Slab and Indoor Air Sampling
4750 30th Street, Long Island City, New York
April 2, 2018 - April 3, 2018

Sample Location		Sub-Slab Soil Vapor		Indoor Air		NYSDOH Study		NYSDOH Air Guidance Values (Specific to Indoor Air)	NYSDOH Immediate Action Level (Specific to Indoor Air)
Sample Date:		4/2/2018 - 4/3/2018		4/2/2018 - 4/3/2018		Homes in NYS 1997 - 2003			
Sample ID:		SSV-1		IA-1					
Laboratory ID:		18-D0122-01		18-D0119-01		Indoor: 25% to 75%	Outdoor: 25% to 75%		
Analyte	Units:		Q		Q				
1,1-Dichloroethylene	ug/m3	ND		0.085		<0.25	<0.25	NA	NA
1,2,4-Trimethylbenzene	ug/m3	550	IS-LO	1,300	IS-LO	0.69 - 4.3	<0.25 - 0.81	NA	NA
1,3,5-Trimethylbenzene	ug/m3	140		430	IS-LO	0.27 - 1.7	<0.25 - 0.34	NA	NA
2-Butanone	ug/m3	5.6		2.4		1.4 - 7.3	0.76 - 2.6	NA	NA
2-Hexanone	ug/m3	ND		4.7		NA	NA	NA	NA
Acetone	ug/m3	390		220		10 - 52	3.4 - 14	NA	NA
Benzene	ug/m3	4.6		0.89		1.1 - 5.9	0.57 - 2.3	NA	NA
Carbon Disulfide	ug/m3	1.7		0.43		NA	NA	NA	NA
Carbon tetrachloride	ug/m3	0.52		0.27		<0.25 - 0.59	<0.25 - 0.6	NA	NA
Chloroform	ug/m3	8.1		0.65		<0.25 - 0.54	<0.25	NA	NA
Chloromethane	ug/m3	0.40		0.66		<0.25 - 1.8	<0.25 - 1.8	NA	NA
cis-1,2-Dichloroethylene	ug/m3	5.0		0.063		<0.25	<0.25	NA	NA
Cyclohexane	ug/m3	3.6		7.2		<0.25 - 2.6	<0.25 - 0.43	NA	NA
Dichlorodifluoromethane	ug/m3	2.2		1.2		<0.25 - 4.1	<0.25 - 4.2	NA	NA
Ethyl acetate	ug/m3	ND		1.6		NA	NA	NA	NA
Ethyl Benzene	ug/m3	15		10		0.41 - 2.8	<0.25 - 0.48	NA	NA
Isopropanol	ug/m3	12		150	E	NA	NA	NA	NA
Methyl Methacrylate	ug/m3	14		3.0		<0.25	<0.25	NA	NA
Methyl tert-butyl ether (MTBE)	ug/m3	5.0		ND		<0.25 - 5.6	<0.25 - 0.86	NA	NA
Methylene chloride	ug/m3	25		5.2		0.31 - 6.6	<0.25 - 0.73	60	NA
n-Heptane	ug/m3	27		33		1.0 - 7.6	<0.25 - 1.0	NA	NA
n-Hexane	ug/m3	15		8.6		0.63 - 6.0	<0.25 - 0.88	NA	NA
o-Xylene	ug/m3	34		37		0.39 - 3.1	<0.25 - 0.56	NA	NA
p- & m- Xylenes	ug/m3	57		40		0.50 - 4.6	<0.25 - 0.48	NA	NA
p-Ethyltoluene	ug/m3	160	IS-LO	370	IS-LO	NA	NA	NA	NA
Propylene	ug/m3	0.81		1.6		NA	NA	NA	NA
Tetrachloroethylene (PCE)	ug/m3	17,000		1,700		<0.25 - 1.1	<0.25 - 0.34	30	300
Toluene	ug/m3	59		82		3.5 - 24.8	0.60 - 2.4	NA	NA
Trichloroethylene (TCE)	ug/m3	98		15		<0.25	<0.25	2	20
Trichlorofluoromethane (Freon 11)	ug/m3	1.3		0.84		1.1 - 5.4	<0.25 - 2.2	NA	NA

Notes:

NYSDOH Study is the Summary of Indoor and Outdoor Levels of Volatile Organic Compounds From Fuel Oil Heated Home in NYS, 1997 to 2003.

The NYSDOH Air Guidelines Values are provided in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York October 2006 and supplemental VOCs added in June 25, 2007 correspondence.

The NYSDOH Immediate Action Levels are provided in the NYDOH August and September 2015 correspondence.

ug/m^3 - micrograms per cubic meter

ND - Analyte not detected at concentration exceeding method detection limit

Highlighted Value incidates contaminnt detected at elevated concentration and/or exceeding its NYSDOH Air Guidance Values and Immediate Action Levels

E - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for thatspecific analysis.

IS-LO The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.

Table 2
Soil Analytical Results with Comparison
to NYSDEC Part 375 Soil Cleanup Objectives (SCOs)
4750 30th Street
Long Island City, New York
April 2, 2018

Sample ID York ID Sampling Date Client Matrix		SB-1 (1.5-2 feet bgs) 18D0049-01 4/2/2018 12:25 Soil		NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Commercial	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives-Industrial
Compound	**CAS Number**	Result	Q		
Volatile Organics, 8260 - Comprehensive		µg/Kg		µg/Kg	µg/Kg
Dilution Factor		1			
1,2,4-Trimethylbenzene	95-63-6	3.6	J	190,000	380,000
Acetone	67-64-1	77	CCV-E, SCAL-E	500,000	1,000,000
Tetrachloroethylene (PCE)	127-18-4	100		150,000	300,000
All other analytes		ND		~	~

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
CCV-E=The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% difference for average Rf or >20% Drift for quadratic fit).
SCAL-E= The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
~=this indicates that no regulatory limit has been established for this analyte

DISCLAIMER:
York Analytical Laboratories, Inc. is providing this information as a convenience to you. York makes no representations or warranties that these data are accurate, complete or represent the latest regulatory authority limits or analytes. York is not responsible for any errors or omissions in these specific regulations. Your use of these data constitute your understanding of these limitations and you agree to hold York harmless from any and all action that may arise from use of said information.

ATTACHMENT A

PREVIOUS ENVIRONMENTAL ASSESSMENTS

Preferred Environmental Services

323 Merrick Avenue• N. Merrick New York 11566
Telephone: (516) 546-1100 • Facsimile: (516) 213-8156

WHITESTONE ASSOCIATES, INC.
ENVIRONMENTAL & GEOTECHNICAL ENGINEERS & CONSULTANTS

35 TECHNOLOGY DRIVE
WARREN, NJ 07059
908.668.7777
FAX 908.754.5936
www.whitestoneassoc.com

SUMMARY REPORT OF FINDINGS

PHASE II SITE INVESTIGATION

EXISTING MILTON PAPER COMPANY
47-50 30th STREET
LONG ISLAND CITY, QUEENS COUNTY, NEW YORK

Prepared for:

PRESTONE PRINTING
45 Main Street
Suite 305
Brooklyn, New York 11201

Prepared by:

WHITESTONE ASSOCIATES, INC.
35 Technology Drive
Warren, New Jersey 07059

Whitestone Project #WJ05-8023
September 27, 2005

WHITESTONE ASSOCIATES, INC.
ENVIRONMENTAL & GEOTECHNICAL ENGINEERS & CONSULTANTS

35 TECHNOLOGY DRIVE
WARREN, NJ 07059
908.668.7777
FAX 908.754.5936
www.whitestoneassoc.com

September 27, 2005

via Federal Express

PRESTONE PRINTING
45 Main Street
Suite 305
Brooklyn, New York 11201

Attention: Mr. Robert Adler

Regarding: SUMMARY REPORT OF FINDINGS
PHASE II SITE INVESTIGATION
EXISTING MILTON PAPER COMPANY
47-50 30th STREET
LONG ISLAND CITY, QUEENS COUNTY, NEW YORK
WHITESTONE PROJECT NO.: WJ05-8023

Dear Mr. Adler:

Whitestone Associates, Inc. (Whitestone) conducted field activities associated with supplemental environmental due diligence investigation activities at the above-referenced site on August 30, 2005. The limited Phase II Site Investigation (SI) was conducted to assess subsurface conditions at the subject site through the collection and analyses of soil and groundwater samples in the vicinity of an abandoned 3,000 gallon former heating oil underground storage tank (UST), floor drains in the western portion of the site building, and in former hazardous materials storage/handling areas. The discharge points of the floor drains also were evaluated during the SI. A summary of Whitestone's activities, findings, conclusions, and recommendations associated with these efforts is presented in the sections that follow.

1.0 ENVIRONMENTAL CONDITIONS

As documented in Whitestone's August 16, 2005 *Summary Report of Findings - Phase I Environmental Site Assessment* (ESA), the subject site consists of an approximately 54,000 square feet (footprint), single-story building. The site building covers the entire subject property and currently is occupied by Milton Paper Company.

This SI was conducted to further evaluate the recognized environmental conditions (RECs) documented during Whitestone's Phase I ESA. The RECs evaluated during this limited SI are summarized as follows:

- The subject property historically has been operated as a chemical warehouse and shellac company. These operations likely included the on-site storage and/or use of hazardous or potentially hazardous

materials. Discharges of such materials/wastes potentially may have resulted in contamination of soil and/or groundwater at the subject property.

- One 3,000 gallon former fuel oil UST remains abandoned in place under the eastern portion of the site building. No environmental sampling reportedly was conducted during UST closure activities, and releases from this former UST may have impacted subsurface conditions at the subject property.

- Two floor drains were observed in a storage room located in the western portion of the site building. A site sketch provided in the November 17, 2004 Phase I ESA prepared by Lender Consulting Service (LCS) for the subject property identifies this room as "reported explosion room". This room formerly may have been utilized for the mixing and testing of chemicals associated with former site operations conducted by Philip A. Hunt Chemical Corporation.

2.0 SCOPE OF WORK AND LIMITATIONS

The scope of this limited SI included the following tasks:

- conducting an evaluation of the discharge point(s) of floor drains utilizing water dye;

- advancing six borings with Geoprobe equipment to facilitate soil screening and select soil and groundwater sampling;

- logging and screening soils with a photoionization detector (PID) for the potential presence of volatile organic (VO) contamination;

- submitting soil samples collected from select borings for laboratory analyses for volatile organic compounds (VO) and semi-volatile organic compounds (SVO); and

- submitting groundwater samples collected from temporary wellpoints established in select borings for laboratory analyses for VO and SVO;

This SI was not intended to be an exhaustive evaluation of subsurface conditions at the subject property and was prepared for the sole use of Prestone Printing, Stadtmauer Bailkin, L.L.P., Citibank, N.A., New York City Industrial Development Agency, their successors, representatives, and assigns, and should not be relied upon by any third party without Whitestone's written consent.

3.0 FLOOR DRAIN EVALUATION

Whitestone utilized a non-toxic water dye in attempt to determine the discharge points of the floor drains observed in the western portion of the site building. The dyed water was poured through the individual drains while potential outfalls (including the stormwater management system and sanitary sewer system) were monitored for the presence of the dye. The dyed water was not observed at the monitored potential outfalls, and the discharge point(s) of the floor drains could not be determined during this evaluation.

4.0 SAMPLING METHODOLOGY

Two soil borings (SB-1 and SB-2) were advanced in the vicinity of the abandoned 3,000 gallon UST and four soil borings (SB-3 through SB-6) were advanced in the former "explosion room" at the western portion of the building. Two of the borings (SB-3 and SB-4) in this room were advanced adjacent to the floor drains.

The borings were advanced utilizing limited-access Geoprobe equipment subcontracted from Enviroprobe Services, Inc. Soil samples were collected as the borings were advanced. Samples were screened with a PID to identify the presence of VO contamination. Soil samples were collected from select borings from the intervals which exhibited the greatest potential for contamination based upon field screening and visual observations. Sampling equipment was decontaminated between successive uses. Temporary PVC wellpoints were placed in borings SB-1, SB-3 and SB-5 to facilitate the collection of groundwater samples. Soil boring logs are provided as Attachment A, and the site and boring locations are depicted on Figure 1 and Figure 2, respectively.

Six soil samples (8023-SB-1 through 8023-SB-6) were submitted to Integrated Analytical Laboratories, L.L.C. (IAL) of Randolph, New Jersey, a State-certified laboratory (NY Certification #11402), for VO and SVO analyses. Analytical results comprise Attachment B and are summarized in Table 1 (Soil and Groundwater Sampling Summary) and Table 2 (Soil Sampling and Analysis Data Summary). Three groundwater samples (8023-SB-1-GW, 8023-SB-3-GW and 8023-SB-5-GW) were collected and submitted to IAL for VO and SVO analyses. Groundwater analytical results are summarized in Table 3 (Groundwater Sampling and Analysis Data Summary).

5.0 SI RESULTS AND SAMPLING AND ANALYSIS DATA SUMMARY

5.1 Site Lithology

Six borings (SB-1 through SB-6) were completed at the subject site to maximum depths of 20.0 feet below ground surface (fbgs). The subsurface soil conditions encountered in the soil borings consisted of the following generalized strata in order of increasing depth.

Surface Materials: The borings conducted in the former "explosion room" (SB-3 through SB-6) encountered approximately six inches to eight inches of concrete then four inches to six inches of cork and then another four inches to six inches of concrete. Voids were documented below the slab in borings SB-4, SB-5 and SB-6. Borings SB-1 and SB-2 encountered approximately eight inches to 12 inches of concrete (floor slab).

Fill Materials: Fill materials were encountered beneath the surficial materials in each of the borings. The fill materials encountered generally consisted of brownish, grayish and olive colored coarse to fine sand with variable amounts of gravel, silt, clay and debris. The debris encountered in the borings consisted of processed gravel and wood. Each boring penetrated through the fill materials into natural soils at depths ranging from approximately nine fbgs to 12.0 fbgs.

Sand: Beneath the fill materials, the borings encountered natural sands that extended to boring termination depths of 20.0 fbgs. This stratum generally consisted of brownish and olive colored coarse to fine sand with variable amounts of gravel and silt.

Groundwater: Groundwater was encountered during the August 30, 2005 field investigation activities in each of the boring at depths ranging from approximately 10 fbgs to 10.5 fbgs.

A summary of boring installation and sampling data is presented in Table 1, and boring logs are presented in Attachment A.

5.2 Soil Sampling Results

Soil borings SB-1 and SB-2 were advanced in the vicinity the abandoned 3,000 gallon former heating oil UST, borings SB-3 and SB-4 were advanced in the vicinity of the floor drains in the former "explosion room" in the western portion of the site building, and borings SB-5 and SB-6 were advanced throughout the former "explosion room". The analytical results for the soil samples did not document VO constituents at concentrations exceeding laboratory method detection limits (MDLs).

Analytical results for the soil samples documented select SVO constituents at concentrations exceeding laboratory MDLs in four of the six soil samples. Select SVO constituents were also detected at concentrations exceeding New York State Department of Environmental Conservation (NYSDEC) Recommended Soil Cleanup Objectives (RSCOs) in borings SB-4 and SB-6. The SVO concentrations detected in these soil samples only slightly exceed applicable NYSDEC guidance values and are typical of concentrations found in fill material in urban areas. Analytical results comprise Attachment B and are summarized in Table 2 (Soil Sampling and Analyses Data Summary).

5.3 Groundwater Sampling Results

Groundwater samples were collected from temporary wellpoints installed in borings SB-1, SB-3 and SB-5. The VO constituent chloroform was detected at a concentration exceeding the laboratory MDL in the groundwater sample collected from boring SB-5, however, below NYSDEC's Groundwater Standard.

The groundwater samples collected from borings SB-1 through SB-3 documented select SVO constituents at concentrations exceeding laboratory MDLs. SVO constituents were also detected at concentrations exceeding NYSDEC Groundwater Standards in borings SB-1 and SB-3. Analytical results comprise Attachment B and are summarized in Table 3 (Groundwater Sampling and Analyses Data Summary).

6.0 CONCLUSIONS AND RECOMMENDATIONS

Whitestone conducted limited SI activities on August 30, 2005 to evaluate subsurface conditions at the subject property. Conclusions and recommendations pertaining to the limited SI activities are summarized as follows:

- Soil sampling and analysis revealed the presence of select SVO constituents in borings SB-4 and SB-6 at concentrations exceeding NYSDEC RSCOs. The levels encountered generally are indicative of typical concentrations occurring in fill in urban and developed areas.

- Groundwater sampling revealed the presence of select SVO constituents in the samples collected from borings SB-1 and SB-3 at concentrations exceeding NYSDEC Groundwater Standards.

- The identified soil and groundwater exceedances of NYSDEC guidelines represent a condition that typically will not warrant further action assuming subsurface soils and groundwater will not be disturbed for site redevelopment. These exceedances should be reported to the NYSDEC, and the current results suggest that the fill conditions likely can be addressed by existing engineering controls (current building slab) or, possibly, institutional controls such as a deed restriction.

- Whitestone could not determine the discharge point(s) of the two floor drains observed in the western portion of the site building. These floor drains should be cleaned and grouted/sealed if not intended for future use. If documented in the future, the discharge point(s) should be evaluated to determine the potential for impacts to subsurface conditions.

Hopefully, this information will be helpful for site planning purposes. Please do not hesitate to contact us at (908) 668-7777 with any questions regarding these matters.

Sincerely,

WHITESTONE ASSOCIATES, INC.

Christopher Seib
Environmental Services Manager

Glennon C. Graham, P.G.
Professional Geologist

TKU/pjp L:\WhitestoneOffice\2005\058023\8023PhIISI.wpd
Enclosures
Copy: Steven Polivy, Esq., Stadtmauer Bailkin, L.L.P.

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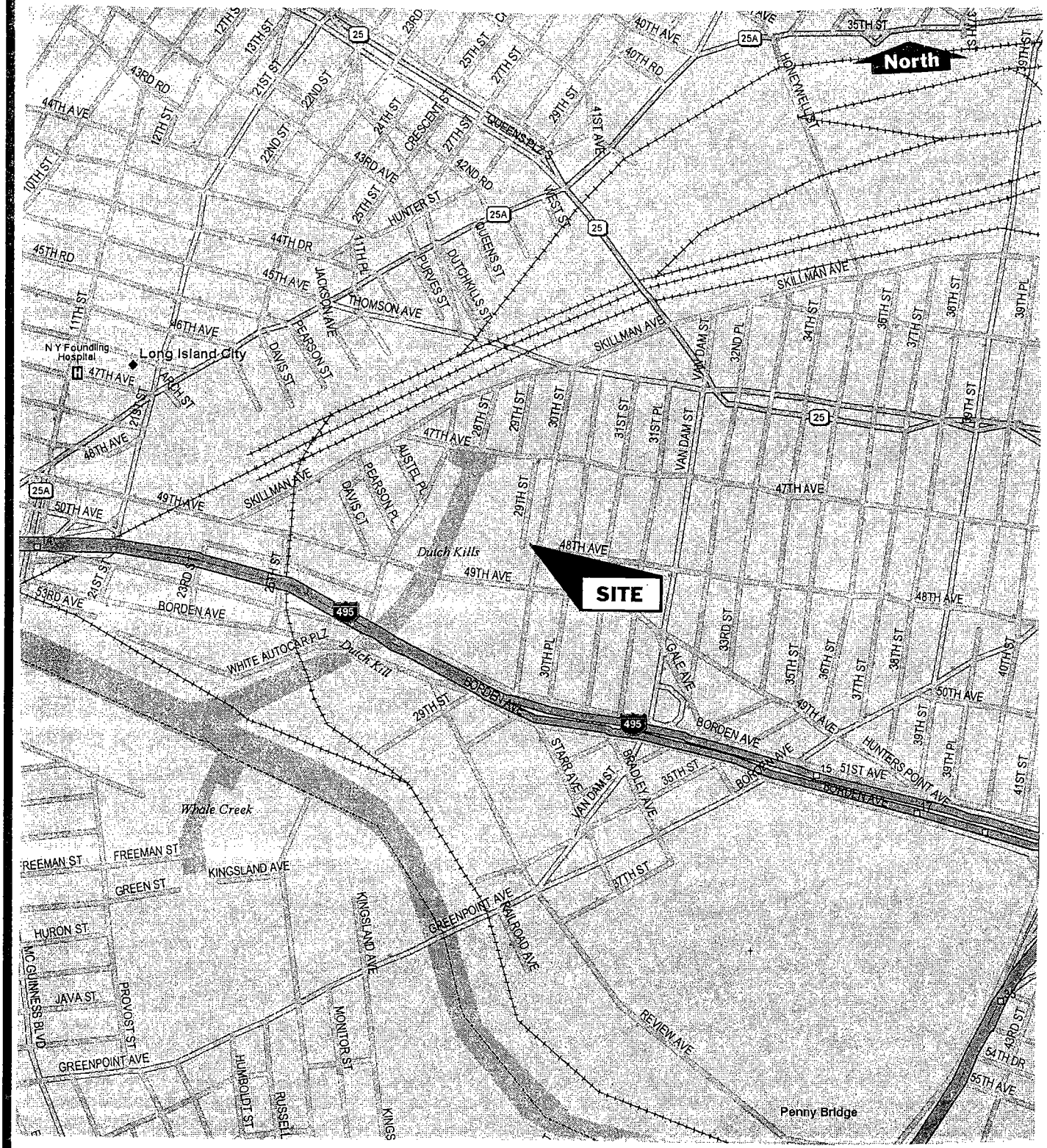
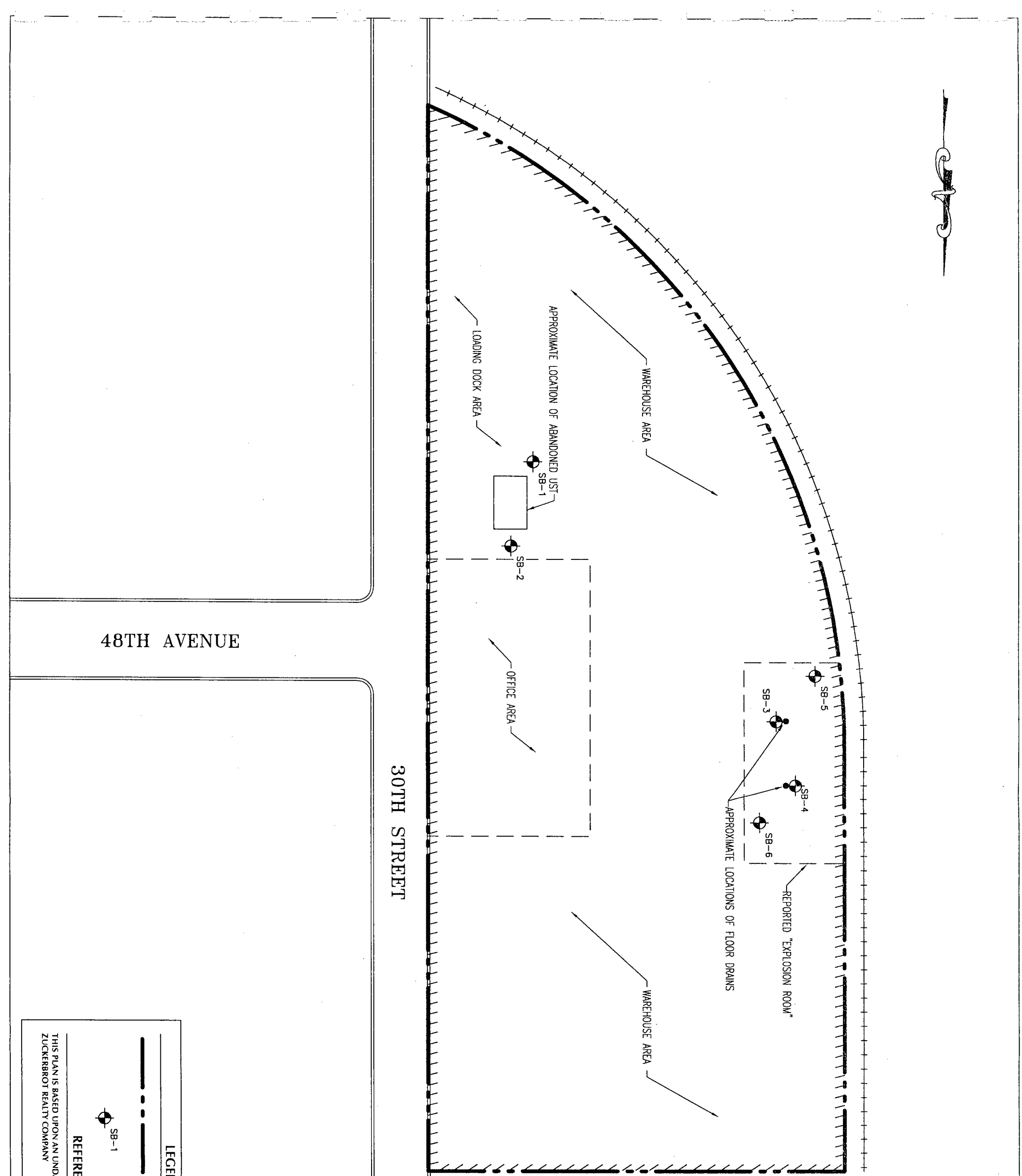
FIGURE 1
Site Location Map



TITLE:	**Site Location Map**						
CLIENT:	PRESTONE PRINTING						
PROJECT:	Phase II Site Investigation Existing Milton Paper Company 47-50 30th Street Long Island City, Queens County, New York	PROJECT #: WJ05-8023	BY: DeLorme	PROJ. MGR.: CS	DATE: 9/21/05	SCALE: 1" = 1,060'	FIGURE: 1

WHITESTONE ASSOCIATES, INC.
35 TECHNOLOGY DRIVE
WARREN, NEW JERSEY 07059
908.668.7777 ✦ 908.754.5936 FAX



TITLE:

BORING LOCATION PLAN

CLIENT: PRESTONE PRINTING

WHITESTONE ASSOCIATES, INC.
35 TECHNOLOGY DRIVE
WARREN, NEW JERSEY 07059
908.668.7777 • 908.754.5936 FAX

PROJECT: PHASE II SITE INVESTIGATION
EXISTING MILTON PAPER COMPANY
47-50 30TH STREET
LONG ISLAND CITY, QUEENS COUNTY, NEW YORK

PROJECT #:	BY:	PROJ. MGR.:	DATE:	SCALE:	FIGURE:
WJ05-8023	MS	CS	8/10/05	N.T.S.	2

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FIGURE 2
Boring Location Plan

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TABLE 1
Soil and Groundwater Sampling Summary

TABLE 1
SOIL AND GROUNDWATER SAMPLING SUMMARY
Existing Milton Paper Company
47-50 30th Street
Long Island City, Queens County, New York

Boring Number	Sample Depths (fbgs)	Total Depth (fbgs)	GW Depth (fbgs)	Maximum PID Reading (ppm)
SB-1	9.5 to 10.0	20.0	10.0	0.0
SB-2	10.0 to 10.5	20.0	10.5	0.0
SB-3	2.5 to 3.0	20.0	10.0	0.0
SB-4	3.5 to 4.0	20.0	10.0	0.0
SB-5	3.5 to 4.0	20.0	10.0	0.0
SB-6	2.5 to 3.0	20.0	10.0	0.0

NOTES:

PID	Photoionization Detector
GW	Groundwater
fbgs	feet below ground surface
ppm	parts per million

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TABLE 2
Soil Sampling and Analysis Data Summary

TABLE 2
SOIL SAMPLING AND ANALYSIS DATA SUMMARY
Existing Milton Paper Company
47-50 30th Street
Long Island City, Queens County, New York

Sample Number	Analytical Parameters	VO Detected Above MDLs (ppm)	SVO Detected Above MDLs (ppm)
8023-SB-1	VO, SVO	ND	phenanthrene = 0.287 (50) flouranthene = 0.234 (8.1) pyrene = 0.169 (50)
8023-SB-2	VO, SVO	ND	flouranthene = 0.185 J (50) pyrene = 0.154 J (50) benzo[a]anthracene = 0.132 J (0.224)
8023-SB-3	VO, SVO	ND	ND
8023-SB-4	VO, SVO	ND	phenanthrene = 0.634 (50) anthracene = 0.134 J (50) di-n-butylphthalate = 0.175 J (8.1) fluoranthene = 1.96 (50) pyrene = 2.01 (50) **benzo[a]anthracene = 1.19 (0.224)** **chrysene = 1.64 (0.4)** **benzo[b]flouranthene = 1.21 (1.1)** **benzo[k]flouranthene = 1.21 (1.1)** **benzo[a]pyrene = 1.29 (0.061)** indeno[1,2,3-cd]pyrene = 0.858 (3.2) **dibenz[a,h]anthracene = 0.396 (0.014)** benzo[g,h,i]perylene = 1.05 (50)
8023-SB-5	VO, SVO	ND	ND
8023-SB-6	VO, SVO	ND	phenanthrene = 0.674 (50) anthracene = 0.309 (50) fluoranthene = 4.01 (50) pyrene = 10.0 (50) **benzo[a]anthracene = 11.3 (0.224)** **chrysene = 16.4 (0.4)** **benzo[b]flouranthene = 6.70 (1.1)** **benzo[k]flouranthene = 6.10 (1.1)** **benzo[a]pyrene = 11.7 (0.061)** **indeno[1,2,3-cd]pyrene = 5.12 (3.2)** **dibenz[a,h]anthracene = 3.57 (0.014)** benzo[g,h,i]perylene = 6.41 (50)

NOTES:

VO	Volatile Organic Compounds
SVO	Semi-Volatile Organic Compounds
MDLs	Laboratory Method Detection Limits
ppm	parts per million
ND	Not Detected exceeding laboratory MDLs
( )	NYSDEC Recommended Soil Cleanup Objective shown in parenthesis
BOLD	Exceeds NYSDEC Recommended Soil Cleanup Objective
J	Detected at concentration below the MDL

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TABLE 3
Groundwater Sampling and Analysis Data Summary

TABLE 3
GROUNDWATER SAMPLING AND ANALYSIS DATA SUMMARY
Existing Milton Paper Company
47-50 30th Street
Long Island City, Queens County, New York

Sample Number	Analytical Parameters	VO Detected Above MDLs (ppb)	SVO Detected Above MDLs (ppb)
8023-SB-1-GW	VO, SVO	ND	naphthalene = 1.29 (10) 2-methylnaphthalene = 0.419 (50) acenaphthene = 8.22 (20) dibenzofuran = 2.67 (5) fluorene = 8.20 (50) phenanthrene = 12.9 (50) anthracene = 2.96 (50) carbazole = 0.960 (NS) fluoranthene = 1.77 (50) pyrene = 1.26 (50) **benzo[a]anthracene = 0.265 (0.002)** **chrysene = 0.168 (0.002)**
8023-SB-3-GW	VO, SVO	ND	naphthalene = 0.586 (10) 2-methylnaphthalene = 0.576 (50) acenaphthene = 6.04 (20) dibenzofuran = 0.281 (5) fluorene = 3.04 (50) phenanthrene = 4.20 (50) anthracene = 0.815 (50) fluoranthene = 0.540 (50) pyrene = 0.410 (50)
8023-SB-5-GW	VO, SVO	chloroform = 0.618 (7.0)	naphthalene = 1.13 (10) 2-methylnaphthalene = 0.365 (50) acenaphthene = 7.22 (20) dibenzofuran = 2.25 (5) fluorene = 7.47 (50) phenanthrene = 10.8 (50) anthracene = 2.20 (50) carbazole = 0.764 (NS) fluoranthene = 1.39 (50) pyrene = 0.985 (50) **benzo[a]anthracene = 0.198 (0.002)**

NOTES:

VO	Volatile Organic Compounds
SVO	Semi-Volatile Organic Compounds
ppb	parts per billion
MDLs	Laboratory Method Detection Limits
ND	Not Detected exceeding laboratory MDLs
NS	Not established Groundwater Standard for this compound
( )	NYSDEC Groundwater Standard shown in parenthesis
BOLD	Exceeds NYSDEC Groundwater Standard

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ATTACHMENT A
Boring Logs

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-1

Project:	**Existing Milton Paper Company**	WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**	Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**
		Machine:	**Dingo**

Water Depths / Elevations (feet / feet-msl)

While Drilling:	10.0	▼
At Completion:	10.0	▽
24 Hours:	NA	▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 12" Concrete 12" - 26" Brown Fine Sand 26" - 36" Brown Fine to Coarse Sand and Coarse to Medium Gravel, Trace Silt	0.0	36	0.0
5.0		0" - 8" Same As Above 8" - 29" Brown Fine to Coarse Sand and Small Gravel 29" - 48" Brown Fine to Coarse Sand	0.0	48	5.0
10.0	▼	0" - 26" Same As Above, Moist 26" - 32" Gray Fine to Coarse Sand, Some Silt, Wet 32" - 48" Gray to Black Fine to Coarse Sand, Some Silt, Wet	0.0	48	10.0
15.0		0" - 48" Same As Above	0.0	48	15.0
20.0		0" - 48" Same As Above	0.0	48	20.0
25.0		Boring SB-1 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-1 Collected @ 9.5 fbgs to 10.0 fbgs @ 1515 Groundwater Sample Collected @ 1530			25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-2

Project:	**Existing Milton Paper Company**	WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**	Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**
		Machine:	**Dingo**

Water Depths / Elevations (feet / feet-msl)

While Drilling:	10.5 ▼
At Completion:	10.5 ▽
24 Hours:	NA ▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 8" Concrete 8" - 22" Brown Fine to Coarse Sand 22" - 39" Brown Fine to Coarse Sand, Some Small to Medium Gravel, Trace Silt	0.0	39	0.0
5.0		0" - 12" Same As Above 12" - 31" Brown Fine to Coarse Sand and Small to Medium Gravel, Trace Silt 31" - 42" Brown Fine to Coarse Sand	0.0	42	5.0
10.0		0" - 13" Same As Above 13" - 29" Gray Fine to Coarse Sand, Some Silt, Moist 29" - 42" Gray to Brown Fine to Coarse Sand, Some Silt, Wet	0.0	42	10.0
15.0		0" - 36" Same As Above	0.0	36	15.0
		0" - 41" Same As Above	0.0	41	
20.0		Boring SB-2 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-2 Collected @ 10.0 fbgs to 10.5 fbgs @ 1545			20.0
25.0					25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-3

(Page 1 of 1)

Project:	**Existing Milton Paper Company**			WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**			Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**	**Water Depths / Elevations (feet / feet-msl)**	
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**		
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**	While Drilling:	**10.0** ▼
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**	At Completion:	**10.0** ▽
		Machine:	**Dingo**	24 Hours:	**NA** ▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 8" Concrete 8" - 12" Cork 12" - 18" Concrete 18" - 36" Brown Fine to Coarse Sand, Trace Silt	0.0	36	0.0
5.0		0" - 27" Brown Fine to Coarse Sand, Some Coarse to Medium Gravel, Trace Silt 27" - 39" Brown Fine to Coarse Sand	0.0	39	5.0
10.0 ▼		0" - 18" Same As Above 18" - 47" Gray-Brown Fine to Coarse Sand, Some Silt, Trace Small Gravel, Wet	0.0	47	10.0
15.0		0" - 43" Same As Above	0.0	43	15.0
		0" - 46" Same As Above	0.0	46	
20.0		Boring SB-3 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-3 Collected @ 2.5 fbgs to 3.0 fbgs @ 1600 Groundwater Sample Collected @ 1605			20.0
25.0					25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-4

Project:	**Existing Milton Paper Company**			WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**			Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**	**Water Depths / Elevations (feet / feet-msl)**	
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**		
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**	While Drilling:	**10.0** ▼
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**	At Completion:	**10.0** ▽
		Machine:	**Dingo**	24 Hours:	**NA** ▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 6" Concrete 6" - 12" Cork 12" - 18" Concrete 18" - 27" Void 27" - 48" Brown Fine to Coarse Sand, Some Small to Medium Gravel	0.0	48	0.0
5.0		0" - 12" Same As Above 12" - 31" Brown Fine to Coarse Sand, Some Small to Medium Gravel, Trace Silt 31" - 38" Brown Fine to Coarse Sand, Trace Silt	0.0	38	5.0
10.0		0" - 18" Same As Above 18" - 27" Brown Fine to Coarse Sand, Some Small to Medium Gravel	0.0	27	10.0
15.0		0" - 8" Same As Above 8" - 39" Gray-Brown Fine to Coarse Sand, Some Silt, Trace Small Gravel, Wet	0.0	39	15.0
		0" - 41" Same As Above	0.0	41	
20.0		Boring SB-4 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-4 Collected @ 3.5 fbgs to 4.0 fbgs @ 1615			20.0
25.0					25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-5

(Page 1 of 1)

Project:	**Existing Milton Paper Company**			WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**			Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**	**Water Depths / Elevations (feet / feet-msl)**	
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**		
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**	While Drilling:	**10.0** ▼
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**	At Completion:	**10.0** ▽
		Machine:	**Dingo**	24 Hours:	**NA** ▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 6" Concrete 6" - 10" Cork 10" - 14" Concrete 14" - 31" Void 31" - 48" Brown Fine to Coarse Sand	0.0	48	0.0
5.0		0" - 10" Brown Fine to Coarse Sand and Small to Medium Gravel, Trace Silt 10" - 36" Brown Fine to Coarse Sand	0.0	36	5.0
10.0 ▼		0" - 22" Same As Above, Moist 22" - 42" Gray to Brown Fine to Coarse Sand, Some Silt, Wet	0.0	42	10.0
15.0		0" - 39" Same As Above	0.0	39	15.0
		0" - 45" Same As Above	0.0	45	
20.0		Boring SB-5 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-5 Collected @ 3.5 fbgs to 4.0 fbgs @ 1625 Groundwater Sample Collected @ 1630			20.0
25.0					25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Boring No.: SB-6

(Page 1 of 1)

Project:	**Existing Milton Paper Company**			WAI Project No.:	**WJ05-8023**
Location:	**47-50 30th Street; Long Island City, NY**			Client:	**Prestone Printing**
Surface Elevation:	**Not Surveyed**	Date Started:	**08/30/05**	**Water Depths / Elevations (feet / feet-msl)**	
Termination Depth:	**20.0 feet bgs**	Date Completed:	**08/30/05**		
Drilling Method:	**Geoprobe**	Logged By:	**G. Graham**	While Drilling:	10.0 ▽
Test Method:	**Macro-Core**	Contractor:	**Enviroprobe Services, Inc.**	At Completion:	10.0 ▽
		Machine:	**Dingo**	24 Hours:	NA ▼

Depth (feet)	Strata	DESCRIPTION OF MATERIALS (Classification)	PID Readings (ppm)	Rec. (in.)	Depth (feet)
0.0		0" - 6" Concrete 6" - 12" Cork 12" - 18" Concrete 18" - 27" Void 27" - 38" Brown Fine to Coarse Sand, Trace Small Gravel, Trace Silt	0.0	38	0.0
5.0		0" - 18" Brown Fine to Coarse Sand and Small to Medium Gravel, Trace Silt 18" - 27" Brown Fine to Coarse Sand	0.0	27	5.0
10.0		0" - 27" Same As Above, Moist 27" - 39" Brown to Gray Fine to Coarse Sand, Some Silt, Wet	0.0	39	10.0
15.0		0" - 47" Same As Above	0.0	47	15.0
20.0		0" - 42" Same As Above	0.0	42	20.0
25.0		Boring SB-6 Terminated at a Depth of 20.0 Feet Below Ground Surface Soil Sample 8023-SB-6 Collected @ 2.5 fbgs to 3.0 fbgs @ 1645			25.0

NOTES: NE = Not Encountered, NA = Not Applicable

WHITESTONE
ASSOCIATES, INC.

ATTACHMENT B
Analytical Data
Summary Sheets

SUMMARY REPORT
Client: Whitestone Associates Inc.
Project: LONG ISLAND CITY
Lab Case No.: E05-09123

Lab ID:	09123-002			09123-005			09123-008		
Client ID:	8023-SB-1-GW			8023-SB-3-GW			8023-SB-5-GW		
Matrix:	Aqueous			Aqueous			Aqueous		
Sampled Date	8/30/05			8/30/05			8/30/05		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (µg/L-ppb)									
Chloroform	ND		0.260	ND		0.260	0.618		0.260
TOTAL VO's:	ND			ND			0.618		
Semivolatiles - BN (µg/L-ppb)									
Naphthalene	1.29		0.110	0.586		0.110	1.13		0.110
2-Methylnaphthalene	0.419		0.140	0.576		0.140	0.365		0.140
Acenaphthene	8.22		0.170	6.04		0.170	7.22		0.170
Dibenzofuran	2.67		0.120	0.281		0.120	2.25		0.120
Fluorene	8.20		0.180	3.04		0.180	7.47		0.180
Phenanthrene	12.9		0.110	4.20		0.110	10.8		0.110
Anthracene	2.96		0.140	0.815		0.140	2.20		0.140
Carbazole	0.960		0.170	ND		0.170	0.764		0.170
Fluoranthene	1.77		0.190	0.540		0.190	1.39		0.190
Pyrene	1.26		0.140	0.410		0.140	0.985		0.140
Benzo[a]anthracene	0.265		0.150	ND		0.150	0.198		0.150
Chrysene	0.168		0.140	ND		0.140	ND		0.140
TOTAL BN'S:	41.1			16.5			34.8		

ND = Analyzed for but Not Detected at the MDL

SUMMARY REPORT
Client: Whitestone Associates Inc.
Project: LONG ISLAND CITY
Lab Case No.: E05-09123

Lab ID:	09123-001			09123-003			09123-004			09123-006		
Client ID:	8023-SB-1			8023-SB-2			8023-SB-3			8023-SB-4		
Matrix:	Soil			Soil			Soil			Soil		
Sampled Date	8/30/05			8/30/05			8/30/05			8/30/05		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (mg/Kg-ppm)												
TOTAL VO's:	ND			ND			ND			ND		
Semivolatiles - BN (mg/Kg-ppm)												
Phenanthrene	0.287		0.260	ND		0.201	ND		0.252	0.634		0.211
Anthracene	ND		0.260	ND		0.201	ND		0.252	0.134	J	0.211
Di-n-butylphthalate	ND		0.260	ND		0.201	ND		0.252	0.175	J	0.211
Fluoranthene	0.234	J	0.260	0.185	J	0.201	ND		0.252	1.96		0.211
Pyrene	0.169	J	0.260	0.154	J	0.201	ND		0.252	2.01		0.211
Benzo[a]anthracene	ND		0.260	0.132	J	0.201	ND		0.252	1.19		0.211
Chrysene	ND		0.260	ND		0.201	ND		0.252	1.64		0.211
Benzo[b]fluoranthene	ND		0.260	ND		0.201	ND		0.252	1.21		0.211
Benzo[k]fluoranthene	ND		0.260	ND		0.201	ND		0.252	1.21		0.211
Benzo[a]pyrene	ND		0.260	ND		0.201	ND		0.252	1.29		0.211
Indeno[1,2,3-cd]pyrene	ND		0.260	ND		0.201	ND		0.252	0.858		0.211
Dibenz[a,h]anthracene	ND		0.260	ND		0.201	ND		0.252	0.396		0.211
Benzo[g,h,i]perylene	ND		0.260	ND		0.201	ND		0.252	1.05		0.211
TOTAL BN'S:	0.690	J		0.471	J		ND			13.8	J	

Lab ID:	09123-007			09123-009		
Client ID:	8023-SB-5			8023-SB-6		
Matrix:	Soil			Soil		
Sampled Date	8/30/05			8/30/05		
PARAMETER(Units)	Conc	Q	MDL	Conc	Q	MDL
Volatiles (mg/Kg-ppm)						
TOTAL VO's:	ND			ND		
Semivolatiles - BN (mg/Kg-ppm)						
Phenanthrene	ND		0.234	0.674		0.208
Anthracene	ND		0.234	0.309		0.208
Fluoranthene	ND		0.234	4.01		0.208
Pyrene	ND		0.234	10.0		0.208
Benzo[a]anthracene	ND		0.234	11.3		0.208
Chrysene	ND		0.234	16.4		0.208
Benzo[b]fluoranthene	ND		0.234	6.70		0.208
Benzo[k]fluoranthene	ND		0.234	6.10		0.208
Benzo[a]pyrene	ND		0.234	11.7		0.208
Indeno[1,2,3-cd]pyrene	ND		0.234	5.12		0.208
Dibenz[a,h]anthracene	ND		0.234	3.57		0.208
Benzo[g,h,i]perylene	ND		0.234	6.41		0.208
TOTAL BN'S:	ND			82.3		

ND = Analyzed for but Not Detected at the MDL
J = The concentration was detected at a value below the MDL

ATTACHMENT B

PHOTOGRAPHIC LOG, AIR SAMPLING FORMS AND NYSDOH QUESTIONNAIRE

Preferred Environmental Services

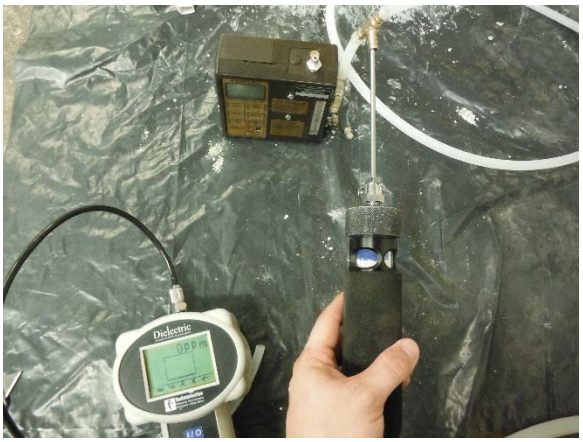
323 Merrick Avenue• N. Merrick New York 11566
Telephone: (516) 546-1100 • Facsimile: (516) 213-8156

Photograph No. 1: Front view of the Subject Property located at 4750 30th Street, Long Island City, NY

Photographs Nos. 2 & 3: Views of the sampling area in the northern portion of the Subject Property which included a storage warehouse and process line machinery for the printing press operations.

Photograph Nos. 4 & 5: The sub-slab vapor point was installed through the concrete slab of the main floor utilizing an electric-powered rotary hammer drill. Tubing was installed through the newly installed vapor point, and the point where the tubing entered the concrete slab was sealed with hydrated bentonite.

Photographs No. 6: View of the sampling set-up used for the sub-slab vapor samples. A 5-gallon bucket with two (2) holes drilled into the bottom and side (shown above) was used for the sub-slab vapor (SSV) sample, with a bentonite seal around the base of the bucket to prevent infiltration of ambient air.



Photographs No. 7: A required helium test was performed (with a helium detector, pictured above) to ensure the integrity of the sampling procedures.

Photograph No. 8: One (1) indoor air sample was also collected, proximate to the SSV sample location within the northern portion of the building. Both the indoor air sample and the SSV sample were collected with 6-liter Summa canisters utilizing a 24-hour regulator.

Photograph Nos. 9 & 10: In addition to the air samples collected, one (1) soil sample was collected from the northwest portion of the building. The soil sample was collected from a soil boring installed utilizing a manually operated stainless steel hand auger, in a location where a two-inch diameter coring drill borehole was installed through the concrete slab prior to Preferred's Soil Vapor Intrusion Study, by others.

Air Sampling Monitoring Form

Sample ID	Date	Sample Time	Sampler Names	Sampling Method/Devices	Soil Vapor Purge Volume (one to three volumes)	Volume Extracted (Canister Size)	Canister initial vacuum	Canister final vacuum	Apparent moisture content (dy, moist, saturated, etc.)	CoC Protocols
SSV-1	4.02.18	13:18	Matt Capori	6L Summa + 24hr regulator	3 Volumes	6L	-27" Hg	-1" Hg	Dry	TO-15
IA-1	4.02.18	13:19	Matt Capori	↓ ↓ ↓	3 Volumes	6L	-30" Hg	-7" Hg	Dry	TO-15

Soil Vapor Sample Log Sheet	
Project Location and Job Number	4750 30th Street, LIC
Sample ID	SSV-1
Date	4.02.18
Sample Type	IA (SSV) SG OA
Sample Depth/Height (ft)	2 inches below grade
Sampler ID	Matt Capani
Pure Start Time	13.18 4.02.18
Purge Finish time	12:15 4.03.18
Total Volume Purged	3 Volumes
Summa Canister Size	6 L
Summa Canister ID	23990
Regulator Time	24 hr
Regulator ID	Y3
Laboratory	York
Notes (i.e.. In saturated soils, dry, sand/gravel, odors, etc.)	
PID Screening after Soil Vapor colletion	19.3 ppm
Hellum Trace	Y (N)
Hellum Detector Make and Model ID	MGD-2002
Hellum detected (if yes at what concentration)	N/A
Analysis Requested	TO-15

Soil Vapor Sample Log Sheet	
Project Location and Job Number	4750 30th Street, LIC
Sample ID	IA-1
Date	4.02.18
Sample Type	(IA) SSV SG OA
Sample Depth/Height (ft)	4 feet above grade
Sampler ID	Matt Caponi
Pure Start Time	13:19 4.02.18
Purge Finish time	13:19 4.03.18
Total Volume Purged	N/A
Summa Canister Size	6L
Summa Canister ID	28842
Regulator Time	24hr.
Regulator ID	7420
Laboratory	York
Notes (i.e.. In saturated soils, dry, sand/gravel, odors, etc.)	
PID Screening after Soil Vapor colletion	
Helium Trace	Y N
Helium Detector Make and Model ID	
Helium detected (if yes at what concentration)	
Analysis Requested	TO-15

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Matthew Cappi Date/Time Prepared 4.02.18

Preparer's Affiliation _____ Phone No._____

Purpose of Investigation_____

1. OCCUPANT:

Interviewed: Y / N

Last Name: Wechsler First Name: Ira

Address: 4750 30th St, Long Island City

County: Queens

Home Phone: _____ Office Phone: (347) 468-7881

Number of Occupants/persons at this location ~100 Age of Occupants ~45

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	~~Other:~~ _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Commercial Printing

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 1 Building age ~1940s

Is the building insulated? (Y) / N How air tight? Tight / (Average) / Not Tight

Roof is, floor is not

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	~~stone~~	brick
b. Basement type:	full	crawlspace	slab	other N/A
c. Basement floor:	concrete	dirt	stone	other N/A
d. Basement floor:	uncovered	covered	covered with N/A	
e. Concrete floor:	unsealed	sealed	sealed with Epoxy	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy N/A
i. The basement is:	finished	unfinished	partially finished N/A	
j. Sump present?	Y (N)			
k. Water in sump?	Y / N (not applicable)			

Basement/Lowest level depth below grade: N/A (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

None Present, cracks in walls

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other Forced H.A. Ducts

The primary type of fuel used is:

~~Natural Gas~~	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other N/A
Air conditioning:	(Central Air)	Window units	Open Windows	None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? N/A Full-time Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	N/A
1st Floor	Workshop / offices
2nd Floor	N/A
3rd Floor	N/A
4th Floor	N/A

8. FACTORS THAT MAY influence INDOOR AIR QUALITY

a. Is there an attached garage? Y (N)

b. Does the garage have a separate heating unit? Y / N (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N (NA) Please specify_____

d. Has the building ever had a fire? Y (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y (N) Where? _____

f. Is there a workshop or hobby/craft area? (Y) N Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) / N When & Type? _____

i. Have cosmetic products been used recently? Y / N When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? (Y) N If yes, where vented? Roof

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: Tar

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? Press wash

If yes, are their clothes washed at work? Y (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
No
(Unknown)

Is there a radon mitigation system for the building/structure? Y (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	(Public Water)	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	(Public Sewer)	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

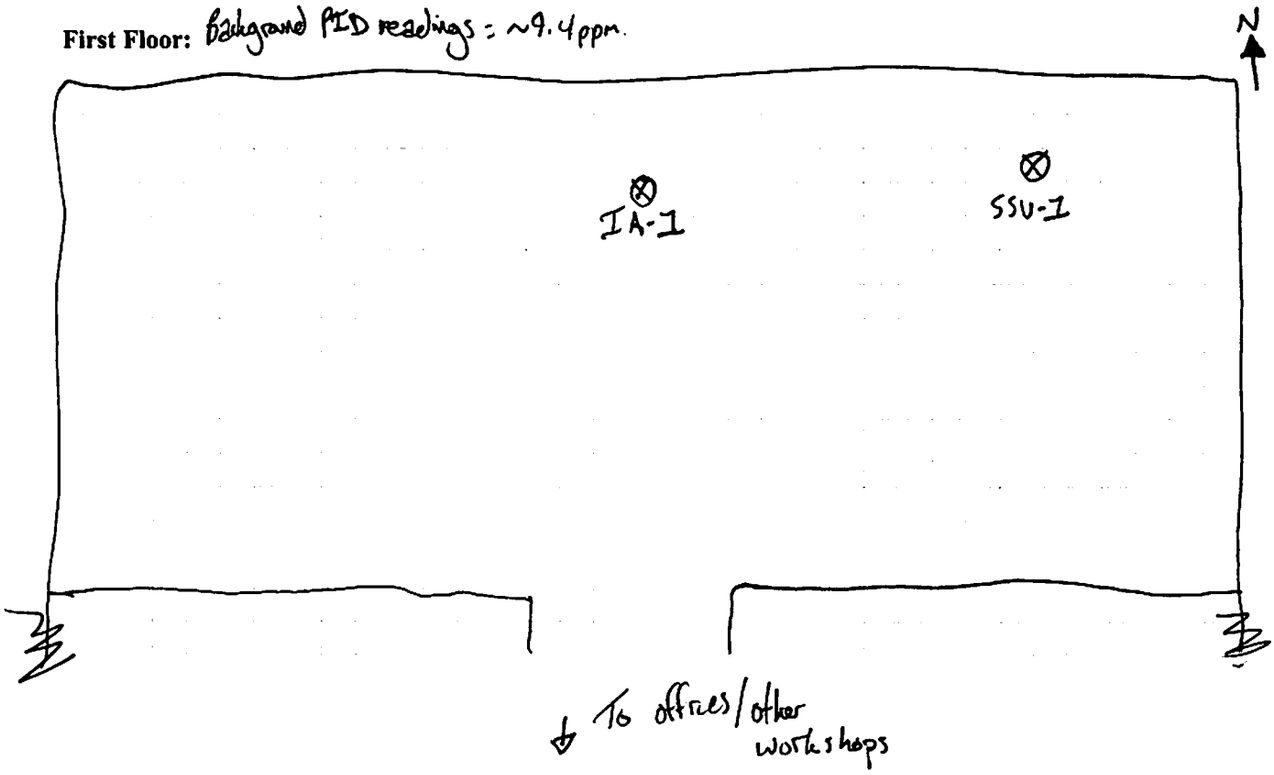
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

None Present

First Floor: Background PID readings = ~9.4 ppm.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PID Mini Rae 3000

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
	See below					

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Note: No stored chemicals were observed in the building which represented potential sources of VOCs within ambient air.

ATTACHMENT C

LABORATORY ANALYTICAL REPORT & SOIL VAPOR DECISION MATRICES

Preferred Environmental Services

323 Merrick Avenue• N. Merrick New York 11566
Telephone: (516) 546-1100 • Facsimile: (516) 213-8156

Technical Report

prepared for:

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

Report Date: 04/10/2018
Client Project ID: 4750 30 Street Long Island City
York Project (SDG) No.: 18D0049

Report Date: 04/10/2018
Client Project ID: 4750 30 Street Long Island City
York Project (SDG) No.: 18D0049

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

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 April 03, 2018 and listed below. The project was identified as your project: **4750 30 Street Long Island City**.

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 Sample and Analysis Qualifiers 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 Sample and Data Qualifiers Relating to This Work Order section of 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.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18D0049-01	SB-1 (1.5-2ft)	Soil	04/02/2018	04/03/2018

General Notes for York Project (SDG) No.: 18D0049

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 analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 04/10/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SB-1 (1.5-2ft) **York Sample ID:** 18D0049-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0049	4750 30 Street Long Island City	Soil	April 2, 2018 12:25 pm	04/03/2018

Volatile Organics, 8260 - Comprehensive

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
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	RDS
95-63-6	**1,2,4-Trimethylbenzene**	**3.6**	J	ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS
123-91-1	1,4-Dioxane	ND		ug/kg dry	61	250	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	RDS
78-93-3	2-Butanone	ND		ug/kg dry	3.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30	04/06/2018 12:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	RDS

Sample Information

Client Sample ID: SB-1 (1.5-2ft) **York Sample ID:** 18D0049-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0049	4750 30 Street Long Island City	Soil	April 2, 2018 12:25 pm	04/03/2018

Volatile Organics, 8260 - Comprehensive

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
591-78-6	2-Hexanone	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
67-64-1	**Acetone**	**77**	CCV-E, SCAL-E	ug/kg dry	6.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
107-02-8	Acrolein	ND		ug/kg dry	6.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
107-13-1	Acrylonitrile	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
71-43-2	Benzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
74-97-5	Bromochloromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
75-27-4	Bromodichloromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
75-25-2	Bromoform	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
74-83-9	Bromomethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
75-15-0	Carbon disulfide	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
108-90-7	Chlorobenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
75-00-3	Chloroethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
67-66-3	Chloroform	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
74-87-3	Chloromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
110-82-7	Cyclohexane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
124-48-1	Dibromochloromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
74-95-3	Dibromomethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS

Sample Information

Client Sample ID: SB-1 (1.5-2ft) **York Sample ID:** 18D0049-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0049	4750 30 Street Long Island City	Soil	April 2, 2018 12:25 pm	04/03/2018

Volatile Organics, 8260 - Comprehensive

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
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
79-20-9	Methyl acetate	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
108-87-2	Methylcyclohexane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
75-09-2	Methylene chloride	ND		ug/kg dry	6.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
95-47-6	o-Xylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	04/06/2018 12:30	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	6.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	04/06/2018 12:30	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
100-42-5	Styrene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	3.1	12	1	EPA 8260C Certifications:	04/06/2018 07:30 NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	04/06/2018 12:30	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
127-18-4	**Tetrachloroethylene**	**100**		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
108-88-3	Toluene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications:	04/06/2018 07:30 CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 12:30	RDS

Sample Information

Client Sample ID: SB-1 (1.5-2ft) **York Sample ID:** 18D0049-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0049	4750 30 Street Long Island City	Soil	April 2, 2018 12:25 pm	04/03/2018

Volatile Organics, 8260 - Comprehensive

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
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications: CTDOH	04/06/2018 07:30	04/06/2018 12:30	RDS
79-01-6	Trichloroethylene	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 07:30	04/06/2018 12:30	RDS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 07:30	04/06/2018 12:30	RDS
75-01-4	Vinyl Chloride	ND		ug/kg dry	3.1	6.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 07:30	04/06/2018 12:30	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	9.2	18	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	04/06/2018 07:30	04/06/2018 12:30	RDS

	Surrogate Recoveries	Result		Acceptance Range
17060-07-0	*Surrogate: 1,2-Dichloroethane-d4*	*90.9 %*		*77-125*
2037-26-5	*Surrogate: Toluene-d8*	*122 %*	S-08	*85-120*
460-00-4	*Surrogate: p-Bromofluorobenzene*	*95.1 %*		*76-130*

Total Solids

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**94.3**		%	0.100	1	SM 2540G Certifications: CTDOH	04/09/2018 09:58	04/09/2018 13:01	TAJ

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18D0049-01	SB-1 (1.5-2ft)	40mL Vial with Stir Bar-Cool 4° C

Sample and Data Qualifiers Relating to This Work Order

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.
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.
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.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	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.

YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

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 and your signature binds you to York's Std. Terms & Conditions.

York Project No. 18D0049

YOUR Information

Company: Preferred Env.
Address: 393 Merrick Ave.
N. Merrick NY 11566
Phone No. 516-546-1100
Contact Person: Bill Schlageter
E-Mail Address: Bschlageter@preferredenv.com

Report To:

Company:
Address:
Phone No. SAME
Attention:
E-Mail Address:

Invoice To:

Company:
Address: SAME
Phone No.
Attention:
E-Mail Address:

YOUR Project ID

4750 30 Street
Long Island City.

Purchase Order No.

PRE-18-039

Samples from: CT ___ NY X NJ ___

Turn-Around Time

- RUSH - Same Day ☐
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- Standard(5-7 Days) X

Report Type

- Summary Report X
- Summary w/ QA Summary
- CT RCP Package
- CTRCP DQA/DUE Pkg
- NY ASP A Package
- NY ASP B Package
- NJDEP Red. Deliv.

Electronic Data Deliverables (EDD)

- Simple Excel X
- NYSDEC EQuIS
- EQuIS (std)
- EZ-EDD (EQuIS)
- NJDEP SRP HazSite EDD
- GIS/KEY (std)
- Other

York Regulatory Comparison
Excel Spreadsheet X
Compare to the following Regs. (please fill in):
NYSDEC PART 375

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)

Nicole Clearity
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists	Misc.
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.	Corrosivity
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics	Reactivity
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN	Ignitability
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP	Flash Point
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX	Sieve Anal.
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part 360-Routine	Heterotrophs
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part 360-Baseline	TOX
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part 360-Expanded Not Detected Values	BTU/lb.
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part 360-Expanded Full List	Aquatic Tox.
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer	TOC
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer	Asbestos
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM	Silica

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
SB-1 (1.5-2Ft)	4.2.18/1225	S	Full List VOCs. 8260	(1) terracore kit.

Comments

Preservation Check those Applicable
Special Instructions
Field Filtered ☐
Lab to Filter ☐

4°C X Frozen ___ HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___
ZnAc Ascorbic Acid Other

Samples Relinquished By — Date/Time 4/3/18 930 PM
Samples Relinquished By — Date/Time

Samples Received By — Date/Time 4/3/18 930PM
Samples Received in LAB by — Date/Time 4/3/18 1917

Temperature on Receipt 2.1 °C

Technical Report

prepared for:

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

Report Date: 04/11/2018
Client Project ID: 47-50 30th Street LIC, NY
York Project (SDG) No.: 18D0119

Report Date: 04/11/2018
Client Project ID: 47-50 30th Street LIC, NY
York Project (SDG) No.: 18D0119

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

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 April 04, 2018 and listed below. The project was identified as your project: **47-50 30th Street LIC, NY**.

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 Sample and Analysis Qualifiers 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 Sample and Data Qualifiers Relating to This Work Order section of 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.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18D0119-01	IA-1 (Reg#7420)	Indoor Ambient Air	04/03/2018	04/04/2018

General Notes for York Project (SDG) No.: 18D0119

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 analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 04/11/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: IA-1 (Reg#7420) **York Sample ID:** 18D0119-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0119	47-50 30th Street LIC, NY	Indoor Ambient Air	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.37	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.29	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.37	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.41	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.29	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.22	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	**1,1-Dichloroethylene**	**0.085**		ug/m³	0.053	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.40	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1300**	IS-LO	ug/m³	8.1	16.48	EPA TO-15	04/09/2018 15:39	04/09/2018 15:39	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.41	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.22	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.25	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.37	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**430**	IS-LO	ug/m³	8.1	16.48	EPA TO-15	04/09/2018 15:39	04/09/2018 15:39	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	0.35	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.25	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	0.38	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**2.4**		ug/m³	0.16	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: IA-1 (Reg#7420)

York Sample ID: 18D0119-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0119	47-50 30th Street LIC, NY	Indoor Ambient Air	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* **2-Hexanone**	**4.7**		ug/m³	0.44	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	0.83	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.22	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**220**		ug/m³	7.8	16.48	EPA TO-15	04/09/2018 15:39	04/09/2018 15:39	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.12	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.89**		ug/m³	0.17	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.28	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.36	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	0.55	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.21	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**0.43**		ug/m³	0.17	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.27**		ug/m³	0.084	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.25	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.14	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**0.65**		ug/m³	0.26	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**0.66**		ug/m³	0.11	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	**cis-1,2-Dichloroethylene**	**0.063**		ug/m³	0.053	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.24	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	**Cyclohexane**	**7.2**		ug/m³	0.18	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	0.45	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.2**		ug/m³	0.26	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* **Ethyl acetate**	**1.6**		ug/m³	0.38	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			

Sample Information

Client Sample ID: **IA-1 (Reg#7420)** **York Sample ID:** **18D0119-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0119	47-50 30th Street LIC, NY	Indoor Ambient Air	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	**Ethyl Benzene**	**10**		ug/m³	0.23	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.57	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**150**	E	ug/m³	0.26	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	**Methyl Methacrylate**	**3.0**		ug/m³	0.22	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.19	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	**Methylene chloride**	**5.2**		ug/m³	0.37	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	**n-Heptane**	**33**		ug/m³	0.22	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**8.6**		ug/m³	0.19	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**37**		ug/m³	0.23	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**40**		ug/m³	0.46	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**370**	IS-LO	ug/m³	8.1	16.48	EPA TO-15	04/09/2018 15:39	04/09/2018 15:39	LDS
							Certifications:			
115-07-1	*** Propylene**	**1.6**		ug/m³	0.092	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.23	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**1700**		ug/m³	2.8	16.48	EPA TO-15	04/09/2018 15:39	04/09/2018 15:39	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.31	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:			
108-88-3	**Toluene**	**82**		ug/m³	0.20	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.21	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.24	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**15**		ug/m³	0.072	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.84**		ug/m³	0.30	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.19	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.23	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: IA-1 (Reg#7420)

York Sample ID: 18D0119-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0119	47-50 30th Street LIC, NY	Indoor Ambient Air	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.034	0.533	EPA TO-15	04/06/2018 09:50	04/06/2018 21:03	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample and Data Qualifiers Relating to This Work Order

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.
IS-LO	The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
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 dectected analytes only.

Definitions and Other Explanations

*	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.

YORK
ANALYTICAL LABORATORIES, INC.

120 RESEARCH DR. STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record - AIR

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. 18D0119

YOUR Information
Company: Preferred Environmental Services
Address: 323 Merrick Ave
Merrick, NY 11566
Phone No. (516) 546-1100
Contact Person: Bill Schlageter
E-Mail Address: bschlageter@preferredenv.com

Report To:
Company:
Address: SAME
Phone No.
Attention:
E-Mail Address:

Invoice To:
Company:
Address: SAME
Phone No.
Attention:
E-Mail Address:

YOUR Project ID
47-50 30th Street
LIC, NY

Purchase Order No.
PRE-18-039

Samples from: CT ___ NY X NJ ___

Turn-Around Time
- RUSH - Same Day ☐
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- Standard(5-7 Days) X

Report Type/Deliverables
- Summary Report X
- 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 X
- 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 any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Matthew Capon
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
- NYSDEC VI list
- Tentatively Identified Compounds
- NYSDEC STARS List
- Air VPH
- **Project Specific List by TO-15**
- Helium
- NJDEP Target List
- Methane
- CTDEP RCP Target List
- OTHER

Detection Limits Required
- ≤ 1 ug/m³
- NYSDEC VI Limits X (VI = vapor intrusion)
- 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
IA-1 (Req#7420)	4/2/18 - 4/3/18	AI	-30 in Hg	-7 in Hg	TO-15	6 Liter Summa canister X / 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

Comments

Samples Relinquished By — Date/Time: 4/4/18-4:46

Samples Relinquished By: Patty Elo — Date/Time: 4/4/18 15:45

Samples Received By: Patty Elo — Date/Time: 4/4/18 9:46

Samples Received in LAB by: P. Zolnowski — Date/Time: 4-4-18 1545

Technical Report

prepared for:

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

Report Date: 04/11/2018
Client Project ID: 47-50 30th Street LIC, NY
York Project (SDG) No.: 18D0122

Report Date: 04/11/2018
Client Project ID: 47-50 30th Street LIC, NY
York Project (SDG) No.: 18D0122

Preferred Env. Services
323 Merrick Ave
North Merrick NY, 11566
Attention: Bill Schlageter

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 April 04, 2018 and listed below. The project was identified as your project: **47-50 30th Street LIC, NY**.

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 Sample and Analysis Qualifiers 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 Sample and Data Qualifiers Relating to This Work Order section of 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.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18D0122-01	SSV-1 (Reg#Y3)	Soil Vapor	04/03/2018	04/04/2018

General Notes for York Project (SDG) No.: 18D0122

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 analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 04/11/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SSV-1 (Reg#Y3) **York Sample ID:** 18D0122-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0122	47-50 30th Street LIC, NY	Soil Vapor	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.95	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.76	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.95	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.1	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.76	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.56	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.14	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.0	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**550**	IS-LO	ug/m³	6.8	13.86	EPA TO-15	04/09/2018 16:40	04/09/2018 16:40	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.1	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.83	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.56	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.64	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.97	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**140**		ug/m³	0.68	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	0.92	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.83	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.64	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.83	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.0	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**5.6**		ug/m³	0.41	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-1 (Reg#Y3) **York Sample ID:** 18D0122-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0122	47-50 30th Street LIC, NY	Soil Vapor	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.1	1.386	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 22:08	LDS
107-05-1	3-Chloropropene	ND		ug/m³	2.2	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.57	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
67-64-1	**Acetone**	**390**		ug/m³	6.6	13.86	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/09/2018 16:40	04/09/2018 16:40	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.30	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
71-43-2	**Benzene**	**4.6**		ug/m³	0.44	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.72	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.93	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
75-25-2	Bromoform	ND		ug/m³	1.4	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
74-83-9	Bromomethane	ND		ug/m³	0.54	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
75-15-0	**Carbon disulfide**	**1.7**		ug/m³	0.43	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
56-23-5	**Carbon tetrachloride**	**0.52**		ug/m³	0.22	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.64	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
75-00-3	Chloroethane	ND		ug/m³	0.37	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
67-66-3	**Chloroform**	**8.1**		ug/m³	0.68	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
74-87-3	**Chloromethane**	**0.40**		ug/m³	0.29	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
156-59-2	**cis-1,2-Dichloroethylene**	**5.0**		ug/m³	0.14	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.63	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
110-82-7	**Cyclohexane**	**3.6**		ug/m³	0.48	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	1.2	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
75-71-8	**Dichlorodifluoromethane**	**2.2**		ug/m³	0.69	1.386	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 22:08	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	1.0	1.386	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 22:08	LDS

Sample Information

Client Sample ID: SSV-1 (Reg#Y3) **York Sample ID:** 18D0122-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0122	47-50 30th Street LIC, NY	Soil Vapor	April 3, 2018 3:00 pm	04/04/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	**Ethyl Benzene**	**15**		ug/m³	0.60	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.5	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	**Isopropanol**	**12**		ug/m³	0.68	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	**Methyl Methacrylate**	**14**		ug/m³	0.57	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	**Methyl tert-butyl ether (MTBE)**	**5.0**		ug/m³	0.50	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	**Methylene chloride**	**25**		ug/m³	0.96	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	**n-Heptane**	**27**		ug/m³	0.57	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	**n-Hexane**	**15**		ug/m³	0.49	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**34**		ug/m³	0.60	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**57**		ug/m³	1.2	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	* **p-Ethyltoluene**	**160**	IS-LO	ug/m³	6.8	13.86	EPA TO-15	04/09/2018 16:40	04/09/2018 16:40	LDS
							Certifications:			
115-07-1	* **Propylene**	**0.81**		ug/m³	0.24	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.59	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**17000**		ug/m³	19	110.88	EPA TO-15	04/10/2018 17:06	04/10/2018 17:06	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.82	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications:			
108-88-3	**Toluene**	**59**		ug/m³	0.52	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.55	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.63	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**98**		ug/m³	0.19	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.3**		ug/m³	0.78	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.49	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.61	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.089	1.386	EPA TO-15	04/06/2018 09:50	04/06/2018 22:08	LDS
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: **SSV-1 (Reg#Y3)** **York Sample ID:** **18D0122-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0122	47-50 30th Street LIC, NY	Soil Vapor	April 3, 2018 3:00 pm	04/04/2018

Sample and Data Qualifiers Relating to This Work Order

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.
IS-LO	The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.
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 dectected analytes only.

Definitions and Other Explanations

*	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.

YORK
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DR. STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record - AIR

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. 18D0122

YOUR Information
Company: Preferred Environmental Services
Address: 323 Merrick Ave
Merrick, NY 11566
Phone No. (516) 546-1100
Contact Person: Bill Schlageter
E-Mail Address: bschlageter@preferredenv.com

Report To:
Company:
Address: SAME
Phone No.
Attention:
E-Mail Address:

Invoice To:
Company:
Address: SAME
Phone No.
Attention:
E-Mail Address:

YOUR Project ID
47-50 30th Street,
LIC, NY

Purchase Order No.
PRE-18-039

Samples from: CT ___ NY X NJ ___

Turn-Around Time
- RUSH - Same Day ☐
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- Standard(5-7 Days) ☒

Report Type/Deliverables
- Summary Report X
- 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 X
- 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 any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Matthew Caponi
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
- NYSDEC VI list
- Tentatively Identified Compounds
- NYSDEC STARS List
- Air VPH
- **Project Specific List by TO-15**
- Helium
- NJDEP Target List
- Methane
- CTDEP RCP Target List
- OTHER ___

Detection Limits Required
- ≤ 1 ug/m³ ___
- NYSDEC VI Limits X (VI = vapor intrusion)
- 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
SSV-1 (Reg #Y3)	4/2/18-4/3/18	AS	-27 in Hg	-1 in Hg	TO-15	6 Liter Summa canister X / 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

Comments

Samples Relinquished By — 4/4/18 - 9:46 (Date/Time)
Patty Elo — 4/4/18 1545
Samples Relinquished By — Date/Time

Patty Elo — 4/4/18 9:46
Samples Received By — Date/Time
4-4-18 1545
Samples Received in LAB by — Date/Time

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:
Trichloroethene (TCE), *cis*-1,2-Dichloroethene (*c*12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended 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 based on site-, building- and analyte-specific information, 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: We recommend mitigation 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.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes 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 analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples 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. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions 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 might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor 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 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion 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 might 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 but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:
Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended 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 based on site-, building- and analyte-specific information, 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: We recommend mitigation 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.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes 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 analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples 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. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions 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 might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor 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 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion 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 might 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 but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:
Vinyl Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)	
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended 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 based on site-, building- and analyte-specific information, 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: We recommend mitigation 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.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes 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 analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples 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. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions 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 might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor 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 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion 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 might 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 but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Attachment D

Field Notes

Vapor Intrusion Sample Log

Date: 9/21/2018
IEC Project #: 13123
Project Name/Address: 47-50 30th Street, Long Island City

Investigator: Mike Cotton
Weather: Sunny
Temp (°F): 70°F

Sample ID	Sample Type (IA, SS, A)	Location (e.g., basement, etc.)	Can ID	Flow ID	PID Reading (ppm)	Start/End Time	Start/End Press.	Sample Duration	Misc. Observation Notes
SV-1	SS	North Side of the Site on the ground floor	1724	695	10.1	7:08 - 14:45	- 30.29 / -0.14	8 hr	
SV-2	SS	Central portion of the Site on the ground floor	173	971	9.5	7:04 - 14:30	- 30.33 / -0.10	8 hr	
SV-3	SS	South Side of the Site on the ground floor	2308	973	1.6	6:58 - 14:16	- 30.81 / -0.20	8 hr	
IA-1	IA	North Side of the Site on the ground floor	2230	854	N/A	7:09 - 14:47	- 30.01 / -0.12	8 hr	
IA-2	IA	Central portion of the Site on the ground floor	329	734	N/A	7:05 - 14:31	- 29.94 / -0.09	8 hr	
IA-3	IA	South Side of the Site on the ground floor	202	856	N/A	7:13 - 14:17	- 30.16 / -0.10	8 hr	

*__IA__ = Indoor Air, __SV__ = Soil Vapor, and __A__ = Ambient

Checklist Items:

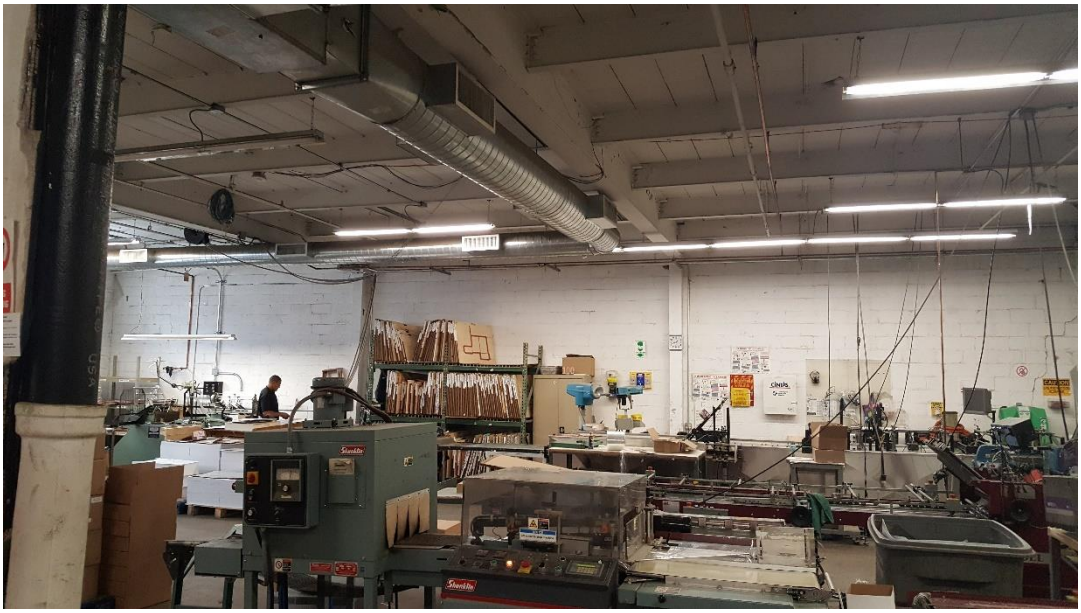
1) Chemical inventory
2) HVAC System Active: use of heating or air conditioning system?
3) Floor layout sketch w/ sample locations shown
4) Floor Plan Sketch
5) Significant precipitation with 12 hour prior to (or during) the sample event?

Impact Environmental Closures, Inc. 170 Keyland Court Bohemia, NY 11716 P. (631) 269-8800	Project #: 13123-01	**BORING ID**
	Site/Project Name: 47-50 30th Street	**B-1/TW-1**
	Site Address: 47-50 30th Street, Queens, NY 11235	
	Weather: Sunny	Total Depth: 15' BSG
	Geologist: Leif Robertson	GW Encountered: ≈ 8' BSG
Start Date: September 20, 2018	Drilling Company: Impact Environmental Closures	GW Stabilized: 8.61' BSG
Start Time: 10:00 AM	Driller: Steven Bitteto	GPS Coordinates:
Completion Date: September 20, 2018	Drill Rig: GeoProbe 420M	X: 40.741784
Completion Time: 10:46 AM	Sampler Type/Length: 2.25" ID Direct Push	Y: -73.938431

Depth (ft.)	PID/FID/OVM	Sample ID and Depth	Recovery (inches)	Soil Type	SOIL/GEOLOGIC DESCRIPTION	Well Construction
1			40%			
2						
3	1.9			N/A	0-6.5': Historic Fill Material	
4			<20%			
5						
6						
7		B-1	40%			
8	0.0			SP	6.5'-9': Brown Find to Coarse SAND, Some Silt and Gravel	
					Groundwater Interface Observed	
9						
10	0.1		60%	SP	9'-10.5': Brown Find to Coarse SAND, Some Silt and Trace Gravel	
11	0.0			SP	10.5'-12': Dark Brown Find to Coarse SAND, Some Silt	
12						
13	0.9		<25%	SP	12'-15': Dark Brown Fine to Coarse SAND, Some Silt and and Gravel	
14						
15						

Impact Environmental Closures, Inc. 170 Keyland Court Bohemia, NY 11716 P. (631) 269-8800	Project #: 13123-01 Site/Project Name: 47-50 30th Street Site Address: 47-50 30th Street, Queens, NY 11235	**BORING ID** **B-2/TW-2**
	Weather: Sunny	Total Depth: 15' BSG
	Geologist: Leif Robertson	GW Encountered: ≈ 9.5' BSG
Start Date: September 20, 2018	Drilling Company: Impact Environmental Closures	GW Stabilized: 9.66' BSG
Start Time: 11:00 AM	Driller: Steven Bitteto	GPS Coordinates:
Completion Date: September 20, 2018	Drill Rig: GeoProbe 420M	X: 40.741768
Completion Time: 12:05 PM	Sampler Type/Length: 2.25" ID Direct Push	Y: -73.938238

Depth (ft.)	PID/FID/OVM	Sample ID and Depth	Recovery (inches)	Soil Type	SOIL/GEOLOGIC DESCRIPTION	Well Construction
1			30%	N/A	0-8': Historic Fill Material	
2						
3						
4	0.0		40%			
5						
6						
7			30%			
8		B-2				
9	0.2			SP	8'-10': Dark Brown Find to Coarse SAND, Some Gravel	
					Groundwater Interface Observed	
10			50%			
11						
12				SP	10'-15': Brown Find to Coarse SAND, Some Silt and Gravel	
13	0.0		75%			
14						
15						



Photograph No. 1: View of northern warehouse area

Photograph No. 2: View of the northern warehouse area

Photograph No. 3: Representative view of interior drilling locations

Photograph No. 4: Representative view of interior drilling locations

Photograph No. 5: View of northern exterior wall conditions

Photograph No. 6: View of western exterior wall conditions in northern warehouse area

Attachment E

Laboratory Analytical Reports

ANALYTICAL REPORT

Lab Number:	L1838130
Client:	Impact Environmental 170 Keyland Ct Bohemia, NY 11716
ATTN:	Greg Mendez-Chicas
Phone:	(631) 269-8800
Project Name:	30TH STREET LIC
Project Number:	13123
Report Date:	10/03/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1838130-01	B-1	SOIL	47-50 30TH STREET, LONG ISLAND CITY, NY	09/20/18 09:45	09/24/18
L1838130-02	B-2	SOIL	47-50 30TH STREET, LONG ISLAND CITY, NY	09/20/18 11:10	09/24/18
L1838130-03	TW-1	WATER	47-50 30TH STREET, LONG ISLAND CITY, NY	09/20/18 12:00	09/24/18
L1838130-04	TW-2	WATER	47-50 30TH STREET, LONG ISLAND CITY, NY	09/20/18 12:45	09/24/18
L1838130-05	TW-3	WATER	47-50 30TH STREET, LONG ISLAND CITY, NY	09/20/18 13:00	09/24/18

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Case Narrative

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

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

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

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

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

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

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Case Narrative (continued)

Report Submission

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

Sample Receipt

The analyses performed were specified by the client.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

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

Authorized Signature: Amita Naik

Title: Technical Director/Representative Date: 10/03/18

ORGANICS

VOLATILES

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-01
Client ID: B-1
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY
Date Collected: 09/20/18 09:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/02/18 16:39
Analyst: NLK
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	0.95		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-01 Date Collected: 09/20/18 09:45

Client ID: B-1 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.89	1
Acetone	22		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.4	1
2-Butanone	ND		ug/kg	9.8	2.2	1
Vinyl acetate	ND		ug/kg	9.8	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.64	1
Acrylonitrile	ND		ug/kg	3.9	1.1	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-01 Date Collected: 09/20/18 09:45

Client ID: B-1 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	98	34.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.17	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.9	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	93		70-130

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-02
Client ID: B-2
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY
Date Collected: 09/20/18 11:10
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/02/18 17:07
Analyst: NLK
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	3.7	1.7	1
1,1-Dichloroethane	ND		ug/kg	0.74	0.11	1
Chloroform	ND		ug/kg	1.1	0.10	1
Carbon tetrachloride	ND		ug/kg	0.74	0.17	1
1,2-Dichloropropane	ND		ug/kg	0.74	0.09	1
Dibromochloromethane	ND		ug/kg	0.74	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	0.74	0.20	1
Tetrachloroethene	10		ug/kg	0.37	0.14	1
Chlorobenzene	ND		ug/kg	0.37	0.09	1
Trichlorofluoromethane	ND		ug/kg	2.9	0.51	1
1,2-Dichloroethane	ND		ug/kg	0.74	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	0.37	0.12	1
Bromodichloromethane	ND		ug/kg	0.37	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	0.37	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	0.37	0.12	1
1,1-Dichloropropene	ND		ug/kg	0.37	0.12	1
Bromoform	ND		ug/kg	2.9	0.18	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.37	0.12	1
Benzene	ND		ug/kg	0.37	0.12	1
Toluene	ND		ug/kg	0.74	0.40	1
Ethylbenzene	ND		ug/kg	0.74	0.10	1
Chloromethane	ND		ug/kg	2.9	0.68	1
Bromomethane	ND		ug/kg	1.5	0.43	1
Vinyl chloride	ND		ug/kg	0.74	0.25	1
Chloroethane	ND		ug/kg	1.5	0.33	1
1,1-Dichloroethene	ND		ug/kg	0.74	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.10	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-02 Date Collected: 09/20/18 11:10

Client ID: B-2 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/kg	0.37	0.10	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	0.10	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	0.12	1
Methyl tert butyl ether	ND		ug/kg	1.5	0.15	1
p/m-Xylene	ND		ug/kg	1.5	0.41	1
o-Xylene	ND		ug/kg	0.74	0.21	1
Xylenes, Total	ND		ug/kg	0.74	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	0.13	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	0.10	1
Dibromomethane	ND		ug/kg	1.5	0.18	1
Styrene	ND		ug/kg	0.74	0.14	1
Dichlorodifluoromethane	ND		ug/kg	7.4	0.67	1
Acetone	ND		ug/kg	7.4	3.5	1
Carbon disulfide	ND		ug/kg	7.4	3.3	1
2-Butanone	ND		ug/kg	7.4	1.6	1
Vinyl acetate	ND		ug/kg	7.4	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	7.4	0.94	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	0.09	1
2-Hexanone	ND		ug/kg	7.4	0.87	1
Bromochloromethane	ND		ug/kg	1.5	0.15	1
2,2-Dichloropropane	ND		ug/kg	1.5	0.15	1
1,2-Dibromoethane	ND		ug/kg	0.74	0.20	1
1,3-Dichloropropane	ND		ug/kg	1.5	0.12	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.37	0.10	1
Bromobenzene	ND		ug/kg	1.5	0.11	1
n-Butylbenzene	ND		ug/kg	0.74	0.12	1
sec-Butylbenzene	ND		ug/kg	0.74	0.11	1
tert-Butylbenzene	ND		ug/kg	1.5	0.09	1
o-Chlorotoluene	ND		ug/kg	1.5	0.14	1
p-Chlorotoluene	ND		ug/kg	1.5	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.2	0.73	1
Hexachlorobutadiene	ND		ug/kg	2.9	0.12	1
Isopropylbenzene	ND		ug/kg	0.74	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.74	0.08	1
Naphthalene	0.52	J	ug/kg	2.9	0.48	1
Acrylonitrile	ND		ug/kg	2.9	0.84	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-02 Date Collected: 09/20/18 11:10

Client ID: B-2 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.74	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	0.24	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	0.20	1
1,3,5-Trimethylbenzene	0.15	J	ug/kg	1.5	0.14	1
1,2,4-Trimethylbenzene	0.43	J	ug/kg	1.5	0.24	1
1,4-Dioxane	ND		ug/kg	74	26.	1
p-Diethylbenzene	0.26	J	ug/kg	1.5	0.13	1
p-Ethyltoluene	ND		ug/kg	1.5	0.28	1
1,2,4,5-Tetramethylbenzene	0.32	J	ug/kg	1.5	0.14	1
Ethyl ether	ND		ug/kg	1.5	0.25	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.7	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	91		70-130

Project Name: 30TH STREET LIC
Lab Number: L1838130
Project Number: 13123
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-03
Client ID: TW-1
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY
Date Collected: 09/20/18 12:00
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/02/18 10:21
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	98		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-03 Date Collected: 09/20/18 12:00

Client ID: TW-1 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	7.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-03 Date Collected: 09/20/18 12:00

Client ID: TW-1 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	119		70-130

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-04
Client ID: TW-2
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY
Date Collected: 09/20/18 12:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/02/18 09:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	170		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.16	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-04 Date Collected: 09/20/18 12:45

Client ID: TW-2 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.91		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	10		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-04 Date Collected: 09/20/18 12:45

Client ID: TW-2 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	120		70-130

Project Name: 30TH STREET LIC
Lab Number: L1838130
Project Number: 13123
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-05
Client ID: TW-3
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY
Date Collected: 09/20/18 13:00
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 10/02/18 10:49
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.39	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-05 Date Collected: 09/20/18 13:00

Client ID: TW-3 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	49		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 30TH STREET LIC **Lab Number:** L1838130

Project Number: 13123 **Report Date:** 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-05 Date Collected: 09/20/18 13:00

Client ID: TW-3 Date Received: 09/24/18

Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	120		70-130

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-05 Batch: WG1163258-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-05 Batch: WG1163258-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-05 Batch: WG1163258-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	121		70-130

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 16:12
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1163580-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 16:12
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1163580-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/02/18 16:12
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1163580-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	93		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-05 Batch: WG1163258-3 WG1163258-4								
Methylene chloride	99		98		70-130	1		20
1,1-Dichloroethane	100		99		70-130	1		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	120		120		63-132	0		20
1,2-Dichloropropane	96		98		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	92		96		70-130	4		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	90		92		70-130	2		20
cis-1,3-Dichloropropene	94		93		70-130	1		20
1,1-Dichloropropene	97		97		70-130	0		20
Bromoform	96		99		54-136	3		20
1,1,2,2-Tetrachloroethane	84		90		67-130	7		20
Benzene	78		77		70-130	1		20
Toluene	95		93		70-130	2		20
Ethylbenzene	93		94		70-130	1		20
Chloromethane	88		88		64-130	0		20
Bromomethane	49		**34**	Q	39-139	**36**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838130

Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-05 Batch: WG1163258-3 WG1163258-4								
Vinyl chloride	100		97		55-140	3		20
Chloroethane	100		97		55-138	3		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	93		97		70-130	4		20
1,3-Dichlorobenzene	97		99		70-130	2		20
1,4-Dichlorobenzene	96		100		70-130	4		20
Methyl tert butyl ether	92		94		63-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	82		87		64-130	6		20
Acrylonitrile	93		97		70-130	4		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	140		140		36-147	0		20
Acetone	84		71		58-148	17		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	77		83		63-138	8		20
Vinyl acetate	98		100		70-130	2		20
4-Methyl-2-pentanone	76		78		59-130	3		20
2-Hexanone	58		62		57-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838130

Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-05 Batch: WG1163258-3 WG1163258-4								
Bromochloromethane	120		120		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	93		95		70-130	2		20
1,3-Dichloropropane	89		92		70-130	3		20
1,1,1,2-Tetrachloroethane	110		100		64-130	10		20
Bromobenzene	95		96		70-130	1		20
n-Butylbenzene	91		93		53-136	2		20
sec-Butylbenzene	91		94		70-130	3		20
tert-Butylbenzene	90		94		70-130	4		20
o-Chlorotoluene	89		91		70-130	2		20
p-Chlorotoluene	85		88		70-130	3		20
1,2-Dibromo-3-chloropropane	80		91		41-144	13		20
Hexachlorobutadiene	98		100		63-130	2		20
Isopropylbenzene	88		90		70-130	2		20
p-Isopropyltoluene	92		96		70-130	4		20
Naphthalene	78		84		70-130	7		20
n-Propylbenzene	88		90		69-130	2		20
1,2,3-Trichlorobenzene	90		93		70-130	3		20
1,2,4-Trichlorobenzene	89		93		70-130	4		20
1,3,5-Trimethylbenzene	90		93		64-130	3		20
1,2,4-Trimethylbenzene	**140**	Q	**140**	Q	70-130	0		20
1,4-Dioxane	96		96		56-162	0		20
p-Diethylbenzene	90		94		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838130

Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-05 Batch: WG1163258-3 WG1163258-4								
p-Ethyltoluene	92		95		70-130	3		20
1,2,4,5-Tetramethylbenzene	85		88		70-130	3		20
Ethyl ether	87		89		59-134	2		20
trans-1,4-Dichloro-2-butene	**68**	Q	73		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		104		70-130
Toluene-d8	96		96		70-130
4-Bromofluorobenzene	88		87		70-130
Dibromofluoromethane	112		112		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1163580-3 WG1163580-4								
Methylene chloride	102		98		70-130	4		30
1,1-Dichloroethane	104		100		70-130	4		30
Chloroform	104		102		70-130	2		30
Carbon tetrachloride	92		90		70-130	2		30
1,2-Dichloropropane	107		104		70-130	3		30
Dibromochloromethane	86		88		70-130	2		30
1,1,2-Trichloroethane	113		112		70-130	1		30
Tetrachloroethene	95		90		70-130	5		30
Chlorobenzene	100		96		70-130	4		30
Trichlorofluoromethane	137		129		70-139	6		30
1,2-Dichloroethane	96		94		70-130	2		30
1,1,1-Trichloroethane	96		91		70-130	5		30
Bromodichloromethane	95		94		70-130	1		30
trans-1,3-Dichloropropene	103		104		70-130	1		30
cis-1,3-Dichloropropene	96		96		70-130	0		30
1,1-Dichloropropene	104		98		70-130	6		30
Bromoform	83		85		70-130	2		30
1,1,2,2-Tetrachloroethane	113		113		70-130	0		30
Benzene	115		110		70-130	4		30
Toluene	117		112		70-130	4		30
Ethylbenzene	117		112		70-130	4		30
Chloromethane	72		80		52-130	11		30
Bromomethane	135		128		57-147	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1163580-3 WG1163580-4								
Vinyl chloride	108		103		67-130	5		30
Chloroethane	132		126		50-151	5		30
1,1-Dichloroethene	**144**	Q	91		65-135	**45**	Q	30
trans-1,2-Dichloroethene	100		95		70-130	5		30
Trichloroethene	100		97		70-130	3		30
1,2-Dichlorobenzene	103		100		70-130	3		30
1,3-Dichlorobenzene	104		101		70-130	3		30
1,4-Dichlorobenzene	106		102		70-130	4		30
Methyl tert butyl ether	87		87		66-130	0		30
p/m-Xylene	111		107		70-130	4		30
o-Xylene	102		98		70-130	4		30
cis-1,2-Dichloroethene	100		98		70-130	2		30
Dibromomethane	97		95		70-130	2		30
Styrene	101		98		70-130	3		30
Dichlorodifluoromethane	68		62		30-146	9		30
Acetone	116		117		54-140	1		30
Carbon disulfide	98		80		59-130	20		30
2-Butanone	82		74		70-130	10		30
Vinyl acetate	**64**	Q	**64**	Q	70-130	0		30
4-Methyl-2-pentanone	96		96		70-130	0		30
1,2,3-Trichloropropane	114		115		68-130	1		30
2-Hexanone	84		86		70-130	2		30
Bromochloromethane	89		88		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838130

Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1163580-3 WG1163580-4								
2,2-Dichloropropane	96		92		70-130	4		30
1,2-Dibromoethane	103		102		70-130	1		30
1,3-Dichloropropane	112		112		69-130	0		30
1,1,1,2-Tetrachloroethane	90		89		70-130	1		30
Bromobenzene	99		95		70-130	4		30
n-Butylbenzene	**132**	Q	124		70-130	6		30
sec-Butylbenzene	123		115		70-130	7		30
tert-Butylbenzene	114		107		70-130	6		30
o-Chlorotoluene	122		116		70-130	5		30
p-Chlorotoluene	118		111		70-130	6		30
1,2-Dibromo-3-chloropropane	91		93		68-130	2		30
Hexachlorobutadiene	102		97		67-130	5		30
Isopropylbenzene	118		111		70-130	6		30
p-Isopropyltoluene	116		109		70-130	6		30
Naphthalene	100		101		70-130	1		30
Acrylonitrile	105		104		70-130	1		30
n-Propylbenzene	127		118		70-130	7		30
1,2,3-Trichlorobenzene	98		99		70-130	1		30
1,2,4-Trichlorobenzene	102		100		70-130	2		30
1,3,5-Trimethylbenzene	116		110		70-130	5		30
1,2,4-Trimethylbenzene	115		109		70-130	5		30
1,4-Dioxane	105		107		65-136	2		30
p-Diethylbenzene	112		105		70-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838130
Report Date: 10/03/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1163580-3 WG1163580-4								
p-Ethyltoluene	114		107		70-130	6		30
1,2,4,5-Tetramethylbenzene	105		101		70-130	4		30
Ethyl ether	124		128		67-130	3		30
trans-1,4-Dichloro-2-butene	97		99		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		100		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	109		107		70-130
Dibromofluoromethane	93		93		70-130

INORGANICS
&
MISCELLANEOUS

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-01
Client ID: B-1
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY

Date Collected: 09/20/18 09:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.5		%	0.100	NA	1	-	10/02/18 10:03	121,2540G	RI

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

SAMPLE RESULTS

Lab ID: L1838130-02
Client ID: B-2
Sample Location: 47-50 30TH STREET, LONG ISLAND CITY, NY

Date Collected: 09/20/18 11:10
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.2		%	0.100	NA	1	-	10/02/18 10:03	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838130

Report Date: 10/03/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1163110-1 QC Sample: L1839483-01 Client ID: DUP Sample						
Solids, Total	84.1	85.4	%	2		20

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838130
Report Date: 10/03/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1838130-01A	Vial Large Septa unpreserved (4oz)	A	NA		3.9	Y	Absent		TS(7),NYTCL-8260(14)
L1838130-01X	Vial MeOH preserved split	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-01Y	Vial Water preserved split	A	NA		3.9	Y	Absent	**02-OCT-18 00:00**	NYTCL-8260(14)
L1838130-01Z	Vial Water preserved split	A	NA		3.9	Y	Absent	**02-OCT-18 00:00**	NYTCL-8260(14)
L1838130-02A	Vial Large Septa unpreserved (4oz)	A	NA		3.9	Y	Absent		TS(7),NYTCL-8260(14)
L1838130-02X	Vial MeOH preserved split	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-02Y	Vial Water preserved split	A	NA		3.9	Y	Absent	**02-OCT-18 00:00**	NYTCL-8260(14)
L1838130-02Z	Vial Water preserved split	A	NA		3.9	Y	Absent	**02-OCT-18 00:00**	NYTCL-8260(14)
L1838130-03X	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-03Y	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-03Z	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-04X	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-04Y	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-04Z	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-05X	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-05Y	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1838130-05Z	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	30TH STREET LIC	**Lab Number:**	L1838130
Project Number:	13123	**Report Date:**	10/03/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	30TH STREET LIC	**Lab Number:**	L1838130
Project Number:	13123	**Report Date:**	10/03/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	30TH STREET LIC	**Lab Number:**	L1838130
Project Number:	13123	**Report Date:**	10/03/18

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

CHAIN OF CUSTODY

IMPACT ENVIRONMENTAL
170 Keyland Court, Bohemia, New York 11716
(Tel.) 631-269-8800 (Fax) 631-269-1599

Page 1 of 1

LAB NAME: Alpha L1838130

RECEIVED DATE:

Client Information

Company Name: Impact Environmental
Address: 170 Keyland Court
City: Bohemia **State:** NY **Zip:** 11716
Project Contact: Greg Mender-Chicas
Phone #: 631-269-8800 **Fax #:** 631-269-1599
E-mail: gmenderchicas@impactenvironmental.com

Project Information

Project Name: 36th Street LIC
Street: 47-36 36th Street
City: Long Island City **State:** NY **Zip:**
Project #: 13123
Sampler's Name: Leif Robertson
Sampler's Signature:

Matrix Codes

L - Liquid
S - Soil
A - Air
OL - Oil
W - Wipe
PC - Paint Chips
SL - Sludge
SD - Solid
DW- Drinking Water
DISS - Dissolved

Sample Type

G=Grab
C=Composite
B=Blank

LAB SAMPLE # (LAB USE ONLY)	Sample Information: Sample ID	IEC Project Code	Sample Collection: Matrix Code	Sample Type	Sample Date	Time	Sample Containers: Number of Each Preserved Bottle: Total # of bottles	NONE or OTHER*	ICE	HCL	Methanol (USEPA 5035)	Sodium Bisulfate (EPA 5035)	Impact Analytical Package A*	Impact Analytical Package B**	Impact Analytical Package C***	VOC 8260 (Analyte List for NY Part 375 and NJ NRDCC)	GP82 Analysis	VOCs 8260 (CP51 Analyte List)	TCL/TAL VOCs (8260) (HOLD)					(LAB USE ONLY)
	1 B-1	13123	S	G	9/20	9:45	1		X										X					
	2 B-2	13123	S	G	9/20	11:10	1		X										X					
	3 TW-1	13123	GW	G	9/20	12:00	3		X	X									X					
	4 TW-2	13123	GW	G	9/20	12:45	3		X	X									X					
	5 TW-3	13123	GW	G	9/20	13:00	3		X	X									X					
	6																							
	7																							
	8																							
	9																							
	10																							

Turnaround Time (Business Days)

Standard Service

- ☐ Standard - 5 day
- ☐ Standard - 4 day
- ☐ Standard - 3 day

Rush Service

- ☐ 48 Hour *RUSH*
- ☐ 24 Hour *RUSH*

(LAB USE ONLY)

TAT Approved By / Date:

Data Deliverable Information

- ☐ Results Only (Level-1)
- ☐ Results plus Misc. QC (Level-2)
- ☐ Results plus ALL QC (Level-3)
- ☐ PA QC Package
- ☐ NJ QC Package (Level3NJ)
- ☐ CLP Category A (Level-2)
- ☐ CLP Category B (Level-4)
- ☐ ASP QC Package (Level-4)
- ☐ Other
- ☐ EDD Format

(EDD Formats: Excel, pdf, EQUIS, GIS, GISKey, SPDES, Ascii, TAGM, OENJ)

REFERENCES

*Package A (proprietary) - Priority Pollutants Metals, SVOCs, PCB/Pest and Herbicides - to match all NJ DCSRS & NY Part 375 parameters and dectection limits. **Package B (proprietary)-Same as Package A, plus TCLP Metals & Category II EPH. ***Package C (proprietary)- Same as Package B plus RCRA characteristics and Full TCLP

NOTES/COMMENTS:

* Submit All Samples on Hold *

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

	Relinquished by Sampler:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1	Maura Mann	9/24/18 14:03	KAL			
2					9/24/18 19:20	Paul Mazzella
3	Paul Mazzella	9/25/18 12:30				
4						
5						

COOLER INFORMATION

Cooler Temp: pH: ☐ On Ice ☐ Sample Receipt Discrepancy(attach information)

Form SS-2/Nov. 2013

ANALYTICAL REPORT

Lab Number:	L1838188
Client:	Impact Environmental 170 Keyland Ct Bohemia, NY 11716
ATTN:	Greg Mendez-Chicas
Phone:	(631) 269-8800
Project Name:	30TH STREET LIC
Project Number:	13123
Report Date:	09/28/18

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1838188-01	SV-1	SOIL_VAPOR	47-50 30TH STREET, LIC	09/21/18 14:45	09/24/18
L1838188-02	SV-2	SOIL_VAPOR	47-50 30TH STREET, LIC	09/21/18 14:30	09/24/18
L1838188-03	SV-3	SOIL_VAPOR	47-50 30TH STREET, LIC	09/21/18 14:16	09/24/18
L1838188-04	IA-1	AIR	47-50 30TH STREET, LIC	09/21/18 14:47	09/24/18
L1838188-05	IA-2	AIR	47-50 30TH STREET, LIC	09/21/18 14:31	09/24/18
L1838188-06	IA-3	AIR	47-50 30TH STREET, LIC	09/21/18 14:17	09/24/18
L1838188-07	UNUSED CAN #182	AIR	47-50 30TH STREET, LIC		09/24/18

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Case Narrative

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

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

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

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

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

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

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 19, 2018. The canister certification results are provided as an addendum.

L1838188-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1838188-02, -03 results for Tetrahydrofuran should be considered estimated due to co-elution with a non-target peak.

L1838188-06: The sample was re-analyzed on dilution in order to quantify the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

L1838188-04 and -05: The samples were re-analyzed on dilution in order to quantify the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 09/28/18

AIR

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-01 D
Client ID: SV-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/28/18 00:29
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	14.1	--	ND	69.7	--		70.42
Chloromethane	ND	14.1	--	ND	29.1	--		70.42
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	14.1	--	ND	98.6	--		70.42
Vinyl chloride	ND	14.1	--	ND	36.0	--		70.42
1,3-Butadiene	ND	14.1	--	ND	31.2	--		70.42
Bromomethane	ND	14.1	--	ND	54.8	--		70.42
Chloroethane	ND	14.1	--	ND	37.2	--		70.42
Ethyl Alcohol	ND	352	--	ND	663	--		70.42
Vinyl bromide	ND	14.1	--	ND	61.6	--		70.42
Acetone	ND	70.4	--	ND	167	--		70.42
Trichlorofluoromethane	ND	14.1	--	ND	79.2	--		70.42
iso-Propyl Alcohol	62.0	35.2	--	152	86.5	--		70.42
1,1-Dichloroethene	ND	14.1	--	ND	55.9	--		70.42
tert-Butyl Alcohol	ND	35.2	--	ND	107	--		70.42
Methylene chloride	ND	35.2	--	ND	122	--		70.42
3-Chloropropene	ND	14.1	--	ND	44.1	--		70.42
Carbon disulfide	ND	14.1	--	ND	43.9	--		70.42
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	14.1	--	ND	108	--		70.42
trans-1,2-Dichloroethene	ND	14.1	--	ND	55.9	--		70.42
1,1-Dichloroethane	ND	14.1	--	ND	57.1	--		70.42
Methyl tert butyl ether	ND	14.1	--	ND	50.8	--		70.42
2-Butanone	ND	35.2	--	ND	104	--		70.42
cis-1,2-Dichloroethene	ND	14.1	--	ND	55.9	--		70.42

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-01 D
Client ID: SV-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	35.2	--	ND	127	--		70.42
Chloroform	ND	14.1	--	ND	68.9	--		70.42
Tetrahydrofuran	ND	35.2	--	ND	104	--		70.42
1,2-Dichloroethane	ND	14.1	--	ND	57.1	--		70.42
n-Hexane	ND	14.1	--	ND	49.7	--		70.42
1,1,1-Trichloroethane	ND	14.1	--	ND	76.9	--		70.42
Benzene	ND	14.1	--	ND	45.0	--		70.42
Carbon tetrachloride	ND	14.1	--	ND	88.7	--		70.42
Cyclohexane	ND	14.1	--	ND	48.5	--		70.42
1,2-Dichloropropane	ND	14.1	--	ND	65.2	--		70.42
Bromodichloromethane	ND	14.1	--	ND	94.5	--		70.42
1,4-Dioxane	ND	14.1	--	ND	50.8	--		70.42
Trichloroethene	18.4	14.1	--	98.9	75.8	--		70.42
2,2,4-Trimethylpentane	ND	14.1	--	ND	65.9	--		70.42
Heptane	ND	14.1	--	ND	57.8	--		70.42
cis-1,3-Dichloropropene	ND	14.1	--	ND	64.0	--		70.42
4-Methyl-2-pentanone	ND	35.2	--	ND	144	--		70.42
trans-1,3-Dichloropropene	ND	14.1	--	ND	64.0	--		70.42
1,1,2-Trichloroethane	ND	14.1	--	ND	76.9	--		70.42
Toluene	ND	14.1	--	ND	53.1	--		70.42
2-Hexanone	ND	14.1	--	ND	57.8	--		70.42
Dibromochloromethane	ND	14.1	--	ND	120	--		70.42
1,2-Dibromoethane	ND	14.1	--	ND	108	--		70.42
Tetrachloroethene	6240	14.1	--	42300	95.6	--		70.42
Chlorobenzene	ND	14.1	--	ND	64.9	--		70.42
Ethylbenzene	ND	14.1	--	ND	61.2	--		70.42

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-01 D
Client ID: SV-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:45
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	28.2	--	ND	122	--		70.42
Bromoform	ND	14.1	--	ND	146	--		70.42
Styrene	ND	14.1	--	ND	60.0	--		70.42
1,1,2,2-Tetrachloroethane	ND	14.1	--	ND	96.8	--		70.42
o-Xylene	ND	14.1	--	ND	61.2	--		70.42
4-Ethyltoluene	ND	14.1	--	ND	69.3	--		70.42
1,3,5-Trimethylbenzene	ND	14.1	--	ND	69.3	--		70.42
1,2,4-Trimethylbenzene	ND	14.1	--	ND	69.3	--		70.42
Benzyl chloride	ND	14.1	--	ND	73.0	--		70.42
1,3-Dichlorobenzene	ND	14.1	--	ND	84.8	--		70.42
1,4-Dichlorobenzene	ND	14.1	--	ND	84.8	--		70.42
1,2-Dichlorobenzene	ND	14.1	--	ND	84.8	--		70.42
1,2,4-Trichlorobenzene	ND	14.1	--	ND	105	--		70.42
Hexachlorobutadiene	ND	14.1	--	ND	150	--		70.42

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	107		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-02
Client ID: SV-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:30
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/28/18 01:08
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.414	0.200	--	2.05	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	57.6	5.00	--	109	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	16.9	1.00	--	40.1	2.38	--		1
Trichlorofluoromethane	0.237	0.200	--	1.33	1.12	--		1
iso-Propyl Alcohol	20.6	0.500	--	50.6	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	3.01	0.500	--	9.12	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.627	0.500	--	1.85	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-02
Client ID: SV-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:30
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	2.59	0.200	--	12.6	0.977	--		1
Tetrahydrofuran	0.823	0.500	--	2.43	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.347	0.200	--	1.22	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.295	0.200	--	1.02	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	0.216	0.200	--	1.45	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	1.10	0.200	--	4.51	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.70	0.200	--	6.41	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	14.2	0.200	--	96.3	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.830	0.200	--	3.61	0.869	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-02
Client ID: SV-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:30
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	2.45	0.400	--	10.6	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.12	0.200	--	4.86	0.869	--		1
4-Ethyltoluene	3.03	0.200	--	14.9	0.983	--		1
1,3,5-Trimethylbenzene	3.20	0.200	--	15.7	0.983	--		1
1,2,4-Trimethylbenzene	11.8	0.200	--	58.0	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	111		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	112		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-03
Client ID: SV-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:16
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/28/18 01:47
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.408	0.200	--	2.02	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	58.2	5.00	--	110	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	64.3	1.00	--	153	2.38	--		1
Trichlorofluoromethane	0.245	0.200	--	1.38	1.12	--		1
iso-Propyl Alcohol	49.4	0.500	--	121	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	3.02	0.500	--	9.16	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.718	0.500	--	2.12	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-03
Client ID: SV-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:16
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.785	0.500	--	2.32	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.266	0.200	--	0.937	0.705	--		1
1,1,1-Trichloroethane	0.212	0.200	--	1.16	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.220	0.200	--	0.757	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	3.94	0.200	--	14.2	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	1.06	0.200	--	4.34	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.31	0.200	--	4.94	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	5.81	0.200	--	39.4	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.475	0.200	--	2.06	0.869	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-03
Client ID: SV-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:16
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	1.65	0.400	--	7.17	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.939	0.200	--	4.08	0.869	--		1
4-Ethyltoluene	2.25	0.200	--	11.1	0.983	--		1
1,3,5-Trimethylbenzene	2.31	0.200	--	11.4	0.983	--		1
1,2,4-Trimethylbenzene	7.79	0.200	--	38.3	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	115		60-140
Bromochloromethane	105		60-140
chlorobenzene-d5	113		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-04
Client ID: IA-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:47
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/27/18 21:57
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.439	0.200	--	2.17	0.989	--		1
Chloromethane	0.397	0.200	--	0.820	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	71.2	5.00	--	134	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	49.6	1.00	--	118	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	62.1	0.500	--	153	1.23	--		1
tert-Butyl Alcohol	0.730	0.500	--	2.21	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.46	0.500	--	4.31	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-04
Client ID: IA-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:47
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	3.31	0.200	--	11.7	0.705	--		1
Benzene	0.299	0.200	--	0.955	0.639	--		1
Cyclohexane	0.658	0.200	--	2.26	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	5.90	0.200	--	24.2	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	3.54	0.200	--	13.3	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.285	0.200	--	1.24	0.869	--		1
p/m-Xylene	1.42	0.400	--	6.17	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.317	0.200	--	1.35	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	3.15	0.200	--	13.7	0.869	--		1
4-Ethyltoluene	19.2	0.200	--	94.4	0.983	--		1
1,3,5-Trimethylbenzene	20.8	0.200	--	102	0.983	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-04
Client ID: IA-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:47
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	57.1	0.200	--	281	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	106		60-140
chlorobenzene-d5	111		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-04
Client ID: IA-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:47
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 21:57
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.081	0.020	--	0.510	0.126	--		1
Trichloroethene	0.708	0.020	--	3.80	0.107	--		1
Tetrachloroethene	75.3	0.020	--	511	0.136	--	E	1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	106		60-140
bromochloromethane	107		60-140
chlorobenzene-d5	113		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-04 D
Client ID: IA-1
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:47
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/28/18 08:44
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	82.9	0.050	--	562	0.339	--		2.5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	100		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	105		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-05
Client ID: IA-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:31
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/27/18 22:36
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.390	0.200	--	1.93	0.989	--		1
Chloromethane	0.330	0.200	--	0.681	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	118	5.00	--	222	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	69.4	1.00	--	165	2.38	--		1
Trichlorofluoromethane	0.209	0.200	--	1.17	1.12	--		1
iso-Propyl Alcohol	98.0	0.500	--	241	1.23	--		1
tert-Butyl Alcohol	1.50	0.500	--	4.55	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.961	0.500	--	2.83	1.47	--		1
Ethyl Acetate	1.78	0.500	--	6.41	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-05
Client ID: IA-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:31
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.21	0.200	--	7.79	0.705	--		1
Benzene	0.262	0.200	--	0.837	0.639	--		1
Cyclohexane	0.935	0.200	--	3.22	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	7.45	0.200	--	30.5	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	3.65	0.200	--	13.8	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.260	0.200	--	1.13	0.869	--		1
p/m-Xylene	1.30	0.400	--	5.65	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.379	0.200	--	1.61	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.94	0.200	--	12.8	0.869	--		1
4-Ethyltoluene	18.2	0.200	--	89.5	0.983	--		1
1,3,5-Trimethylbenzene	19.7	0.200	--	96.8	0.983	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-05
Client ID: IA-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:31
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	57.2	0.200	--	281	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	112		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	117		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-05
Client ID: IA-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:31
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 22:36
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.062	0.020	--	0.390	0.126	--		1
Trichloroethene	0.540	0.020	--	2.90	0.107	--		1
Tetrachloroethene	57.3	0.020	--	389	0.136	--	E	1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	113		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	122		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-05 D
Client ID: IA-2
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:31
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/28/18 09:21
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Tetrachloroethene	65.8	0.040	--	446	0.271	--		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	99		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	105		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-06
Client ID: IA-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:17
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/27/18 23:53
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.391	0.200	--	1.93	0.989	--		1
Chloromethane	0.330	0.200	--	0.681	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	76.8	5.00	--	145	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	597	1.00	--	1420	2.38	--	E	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	812	0.500	--	2000	1.23	--	E	1
tert-Butyl Alcohol	6.52	0.500	--	19.8	1.52	--		1
Methylene chloride	2.27	0.500	--	7.89	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.257	0.200	--	0.800	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.88	0.500	--	8.49	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-06
Client ID: IA-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:17
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.30	0.200	--	8.11	0.705	--		1
Benzene	0.461	0.200	--	1.47	0.639	--		1
Cyclohexane	10.8	0.200	--	37.2	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	68.5	0.200	--	281	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.688	0.500	--	2.82	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	15.2	0.200	--	57.3	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.898	0.200	--	3.90	0.869	--		1
p/m-Xylene	5.09	0.400	--	22.1	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.876	0.200	--	3.73	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	13.0	0.200	--	56.5	0.869	--		1
4-Ethyltoluene	46.3	0.200	--	228	0.983	--		1
1,3,5-Trimethylbenzene	60.8	0.200	--	299	0.983	--		1

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-06
Client ID: IA-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:17
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	138	0.200	--	678	0.983	--	E	1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	117		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	127		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-06
Client ID: IA-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:17
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 23:53
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.063	0.020	--	0.396	0.126	--		1
Trichloroethene	0.041	0.020	--	0.220	0.107	--		1
Tetrachloroethene	3.04	0.020	--	20.6	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	118		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	134		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

SAMPLE RESULTS

Lab ID: L1838188-06 D
Client ID: IA-3
Sample Location: 47-50 30TH STREET, LIC

Date Collected: 09/21/18 14:17
Date Received: 09/24/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/28/18 10:33
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Acetone	743	5.00	--	1760	11.9	--		5
iso-Propyl Alcohol	1030	2.50	--	2530	6.15	--		5
1,2,4-Trimethylbenzene	256	1.00	--	1260	4.92	--		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	105		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	104		60-140

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1161678-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1161678-4								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1161678-4								
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1161678-4								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-06 Batch: WG1161678-4								
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-06 Batch: WG1161680-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-06 Batch: WG1161680-4								
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-06 Batch: WG1161680-4								
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: 30TH STREET LIC
Project Number: 13123
Lab Number: L1838188
Report Date: 09/28/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/27/18 16:25

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-06 Batch: WG1161680-4								
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1161678-3								
Chlorodifluoromethane	78		-		70-130	-		
Propylene	89		-		70-130	-		
Propane	**66**	Q	-		70-130	-		
Dichlorodifluoromethane	88		-		70-130	-		
Chloromethane	76		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	80		-		70-130	-		
Methanol	**65**	Q	-		70-130	-		
Vinyl chloride	77		-		70-130	-		
1,3-Butadiene	78		-		70-130	-		
Butane	71		-		70-130	-		
Bromomethane	83		-		70-130	-		
Chloroethane	80		-		70-130	-		
Ethyl Alcohol	73		-		70-130	-		
Dichlorofluoromethane	75		-		70-130	-		
Vinyl bromide	81		-		70-130	-		
Acrolein	**67**	Q	-		70-130	-		
Acetone	79		-		70-130	-		
Acetonitrile	**65**	Q	-		70-130	-		
Trichlorofluoromethane	97		-		70-130	-		
iso-Propyl Alcohol	76		-		70-130	-		
Acrylonitrile	74		-		70-130	-		
Pentane	**67**	Q	-		70-130	-		
Ethyl ether	74		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1161678-3								
1,1-Dichloroethene	86		-		70-130	-		
tert-Butyl Alcohol	72		-		70-130	-		
Methylene chloride	83		-		70-130	-		
3-Chloropropene	79		-		70-130	-		
Carbon disulfide	75		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	83		-		70-130	-		
trans-1,2-Dichloroethene	86		-		70-130	-		
1,1-Dichloroethane	89		-		70-130	-		
Methyl tert butyl ether	89		-		70-130	-		
Vinyl acetate	97		-		70-130	-		
2-Butanone	98		-		70-130	-		
cis-1,2-Dichloroethene	89		-		70-130	-		
Ethyl Acetate	88		-		70-130	-		
Chloroform	105		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
2,2-Dichloropropane	94		-		70-130	-		
1,2-Dichloroethane	101		-		70-130	-		
n-Hexane	90		-		70-130	-		
Isopropyl Ether	78		-		70-130	-		
Ethyl-Tert-Butyl-Ether	74		-		70-130	-		
1,1,1-Trichloroethane	106		-		70-130	-		
1,1-Dichloropropene	94		-		70-130	-		
Benzene	97		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1161678-3								
Carbon tetrachloride	112		-		70-130	-		
Cyclohexane	92		-		70-130	-		
Tertiary-Amyl Methyl Ether	81		-		70-130	-		
Dibromomethane	93		-		70-130	-		
1,2-Dichloropropane	90		-		70-130	-		
Bromodichloromethane	113		-		70-130	-		
1,4-Dioxane	102		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	94		-		70-130	-		
Methyl Methacrylate	75		-		70-130	-		
Heptane	98		-		70-130	-		
cis-1,3-Dichloropropene	104		-		70-130	-		
4-Methyl-2-pentanone	103		-		70-130	-		
trans-1,3-Dichloropropene	94		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Toluene	88		-		70-130	-		
1,3-Dichloropropane	91		-		70-130	-		
2-Hexanone	94		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		
Butyl Acetate	85		-		70-130	-		
Octane	85		-		70-130	-		
Tetrachloroethene	97		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1161678-3								
1,1,1,2-Tetrachloroethane	95		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	95		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	111		-		70-130	-		
Styrene	100		-		70-130	-		
1,1,2,2-Tetrachloroethane	105		-		70-130	-		
o-Xylene	97		-		70-130	-		
1,2,3-Trichloropropane	95		-		70-130	-		
Nonane (C9)	87		-		70-130	-		
Isopropylbenzene	96		-		70-130	-		
Bromobenzene	95		-		70-130	-		
o-Chlorotoluene	92		-		70-130	-		
n-Propylbenzene	93		-		70-130	-		
p-Chlorotoluene	93		-		70-130	-		
4-Ethyltoluene	103		-		70-130	-		
1,3,5-Trimethylbenzene	99		-		70-130	-		
tert-Butylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	102		-		70-130	-		
Decane (C10)	86		-		70-130	-		
Benzyl chloride	108		-		70-130	-		
1,3-Dichlorobenzene	106		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1161678-3								
sec-Butylbenzene	96		-		70-130	-		
p-Isopropyltoluene	**68**	Q	-		70-130	-		
1,2-Dichlorobenzene	77		-		70-130	-		
n-Butylbenzene	96		-		70-130	-		
1,2-Dibromo-3-chloropropane	102		-		70-130	-		
Undecane	93		-		70-130	-		
Dodecane (C12)	96		-		70-130	-		
1,2,4-Trichlorobenzene	109		-		70-130	-		
Naphthalene	97		-		70-130	-		
1,2,3-Trichlorobenzene	104		-		70-130	-		
Hexachlorobutadiene	114		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 Batch: WG1161680-3								
Propylene	79		-		70-130	-		25
Dichlorodifluoromethane	78		-		70-130	-		25
Chloromethane	**65**	Q	-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	74		-		70-130	-		25
Vinyl chloride	71		-		70-130	-		25
1,3-Butadiene	76		-		70-130	-		25
Bromomethane	74		-		70-130	-		25
Chloroethane	70		-		70-130	-		25
Ethyl Alcohol	76		-		70-130	-		25
Vinyl bromide	71		-		70-130	-		25
Acetone	71		-		70-130	-		25
Trichlorofluoromethane	87		-		70-130	-		25
iso-Propyl Alcohol	**69**	Q	-		70-130	-		25
Acrylonitrile	**69**	Q	-		70-130	-		25
1,1-Dichloroethene	79		-		70-130	-		25
tert-Butyl Alcohol[1]	**62**	Q	-		70-130	-		25
Methylene chloride	79		-		70-130	-		25
3-Chloropropene	76		-		70-130	-		25
Carbon disulfide	70		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	77		-		70-130	-		25
trans-1,2-Dichloroethene	76		-		70-130	-		25
1,1-Dichloroethane	80		-		70-130	-		25
Methyl tert butyl ether	79		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 Batch: WG1161680-3								
Vinyl acetate	90		-		70-130	-		25
2-Butanone	86		-		70-130	-		25
cis-1,2-Dichloroethene	78		-		70-130	-		25
Ethyl Acetate	79		-		70-130	-		25
Chloroform	95		-		70-130	-		25
Tetrahydrofuran	81		-		70-130	-		25
1,2-Dichloroethane	86		-		70-130	-		25
n-Hexane	85		-		70-130	-		25
1,1,1-Trichloroethane	95		-		70-130	-		25
Benzene	89		-		70-130	-		25
Carbon tetrachloride	104		-		70-130	-		25
Cyclohexane	83		-		70-130	-		25
Dibromomethane[1]	81		-		70-130	-		25
1,2-Dichloropropane	82		-		70-130	-		25
Bromodichloromethane	102		-		70-130	-		25
1,4-Dioxane	94		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
2,2,4-Trimethylpentane	88		-		70-130	-		25
cis-1,3-Dichloropropene	83		-		70-130	-		25
4-Methyl-2-pentanone	97		-		70-130	-		25
trans-1,3-Dichloropropene	94		-		70-130	-		25
1,1,2-Trichloroethane	96		-		70-130	-		25
Toluene	81		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 Batch: WG1161680-3								
2-Hexanone	93		-		70-130	-		25
Dibromochloromethane	103		-		70-130	-		25
1,2-Dibromoethane	93		-		70-130	-		25
Tetrachloroethene	90		-		70-130	-		25
1,1,1,2-Tetrachloroethane	85		-		70-130	-		25
Chlorobenzene	92		-		70-130	-		25
Ethylbenzene	85		-		70-130	-		25
p/m-Xylene	87		-		70-130	-		25
Bromoform	103		-		70-130	-		25
Styrene	91		-		70-130	-		25
1,1,2,2-Tetrachloroethane	99		-		70-130	-		25
o-Xylene	87		-		70-130	-		25
1,2,3-Trichloropropane[1]	91		-		70-130	-		25
Isopropylbenzene	88		-		70-130	-		25
Bromobenzene[1]	88		-		70-130	-		25
4-Ethyltoluene	98		-		70-130	-		25
1,3,5-Trimethylbenzene	93		-		70-130	-		25
1,2,4-Trimethylbenzene	97		-		70-130	-		25
Benzyl chloride	109		-		70-130	-		25
1,3-Dichlorobenzene	104		-		70-130	-		25
1,4-Dichlorobenzene	101		-		70-130	-		25
sec-Butylbenzene	91		-		70-130	-		25
p-Isopropyltoluene	77		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: 30TH STREET LIC

Project Number: 13123

Lab Number: L1838188

Report Date: 09/28/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 Batch: WG1161680-3								
1,2-Dichlorobenzene	89		-		70-130	-		25
n-Butylbenzene	93		-		70-130	-		25
1,2,4-Trichlorobenzene	111		-		70-130	-		25
Naphthalene	99		-		70-130	-		25
1,2,3-Trichlorobenzene	105		-		70-130	-		25
Hexachlorobutadiene	113		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1161678-5 QC Sample: L1838188-05 Client ID: IA-2						
Dichlorodifluoromethane	0.390	0.402	ppbV	3		25
Chloromethane	0.330	0.332	ppbV	1		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	118	124	ppbV	5		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	69.4	70.7	ppbV	2		25
Trichlorofluoromethane	0.209	0.200	ppbV	4		25
iso-Propyl Alcohol	98.0	100	ppbV	2		25
tert-Butyl Alcohol	1.50	1.56	ppbV	4		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	0.961	0.974	ppbV	1		25
Ethyl Acetate	1.78	1.81	ppbV	2		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1161678-5 QC Sample: L1838188-05 Client ID: IA-2						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	2.21	2.24	ppbV	1		25
Benzene	0.262	0.260	ppbV	1		25
Cyclohexane	0.935	0.953	ppbV	2		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	7.45	7.53	ppbV	1		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	3.65	3.72	ppbV	2		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.260	0.263	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1161678-5 QC Sample: L1838188-05 Client ID: IA-2						
p/m-Xylene	1.30	1.30	ppbV	0		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	0.379	0.383	ppbV	1		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	2.94	2.99	ppbV	2		25
4-Ethyltoluene	18.2	18.6	ppbV	2		25
1,3,5-Trimethylbenzene	19.7	19.7	ppbV	0		25
1,2,4-Trimethylbenzene	57.2	56.7	ppbV	1		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1161680-5 QC Sample: L1838188-05 Client ID: IA-2						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.062	0.060	ppbV	3		25
Trichloroethene	0.540	0.556	ppbV	3		25
Tetrachloroethene	57.3E	56.9E	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1161680-5 QC Sample: L1838188-05 Client ID: IA-2						
Tetrachloroethene	65.8	66.5	ppbV	1		25

Project Name: 30TH STREET LIC

Lab Number: L1838188

Project Number: 13123

Report Date: 09/28/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1838188-01	SV-1	0695	Flow 4	09/19/18	274780		-	-	-	Pass	17.8	15.6	13
L1838188-01	SV-1	1724	2.7L Can	09/19/18	274780	L1836011-01	Pass	-29.0	-0.24	-	-	-	-
L1838188-02	SV-2	0971	Flow 3	09/19/18	274780		-	-	-	Pass	17.5	17.4	1
L1838188-02	SV-2	173	2.7L Can	09/19/18	274780	L1835794-01	Pass	-28.9	-0.14	-	-	-	-
L1838188-03	SV-3	0973	Flow 4	09/19/18	274780		-	-	-	Pass	18.0	19.1	6
L1838188-03	SV-3	2308	2.7L Can	09/19/18	274780	L1835794-01	Pass	-29.0	-0.20	-	-	-	-
L1838188-04	IA-1	0854	Flow 4	09/19/18	274780		-	-	-	Pass	22.7	19.8	14
L1838188-04	IA-1	2230	2.7L Can	09/19/18	274780	L1835794-01	Pass	-29.1	-0.29	-	-	-	-
L1838188-05	IA-2	0743	Flow 3	09/19/18	274780		-	-	-	Pass	17.9	19.2	7
L1838188-05	IA-2	329	2.7L Can	09/19/18	274780	L1836011-01	Pass	-28.9	-0.10	-	-	-	-
L1838188-06	IA-3	0856	Flow 4	09/19/18	274780		-	-	-	Pass	17.4	17.6	1
L1838188-06	IA-3	202	2.7L Can	09/19/18	274780	L1835794-01	Pass	-29.1	-0.37	-	-	-	-
L1838188-07	UNUSED CAN #182	0865	SV200	09/19/18	274780		-	-	-	Pass	19.1	19.1	0
L1838188-07	UNUSED CAN #182	182	2.7L Can	09/19/18	274780	L1835794-01	Pass	-29.1	-29.1	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/18 23:58
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1835794

Project Number: CANISTER QC BAT **Report Date:** 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/18 23:58
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835794
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1835794-01
Client ID: CAN 1721 SHELF 1
Sample Location:

Date Collected: 09/10/18 16:00
Date Received: 09/11/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/18 22:54
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1836011

Project Number: CANISTER QC BAT **Report Date:** 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1836011

Project Number: CANISTER QC BAT **Report Date:** 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/18 22:54
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1836011
Report Date: 09/28/18

Air Canister Certification Results

Lab ID: L1836011-01
Client ID: CAN 497 SHELF 3
Sample Location:

Date Collected: 09/11/18 16:00
Date Received: 09/12/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140

Project Name: 30TH STREET LIC
Project Number: 13123

Lab Number: L1838188
Report Date: 09/28/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	*Custody Seal*
N/A	Absent

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L1838188-01A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1838188-02A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1838188-03A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1838188-04A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-SIM(30)
L1838188-05A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-SIM(30)
L1838188-06A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-SIM(30)
L1838188-07A	Canister - 2.7 Liter	N/A	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	30TH STREET LIC	**Lab Number:**	L1838188
Project Number:	13123	**Report Date:**	09/28/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

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

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

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

Report Format: Data Usability Report

Project Name:	30TH STREET LIC	**Lab Number:**	L1838188
Project Number:	13123	**Report Date:**	09/28/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/25/18

ALPHA Job #: L8 38188

Client Information

Client: Impact Environmental
Address: 170 Keyland Court
Phone: 631-269-8800
Fax:
Email: gmendez-chicas@impactenvironmental.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 30th street LIC
Project Location: 47-50 30th street, LIC
Project #: 13123
Project Manager: Greg Mendez Chicas
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subset Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
38188.01	SV-1	9/21	7:08	2:15	-30.29	-0.14	SV	ML	2.7	1724 ~~0695~~	0695	X					
.02	SV-2	9/21	7:04	2:30	-30.33	-0.10	SV	ML	2.7	173 ~~0971~~	0971	X					
.03	SV-3	9/21	6:58	2:16	-30.51	-0.20	SV	ML	2.7	2308 ~~0973~~	0973	X					
.04	IA-1	9/21	7:09	2:47	-30.01	-0.12	AA	ML	2.7	2230 ~~0854~~	0854	X					
.05	IA-2	9/21	7:05	2:31	-29.99	-0.09	AA	ML	2.7	329 ~~0734~~	0734	X					
.06	IA-3	9/21	7:13	2:17	-30.16	-0.10	AA	ML	2.7	202 ~~0856~~	0856	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
Maria Wu	9/24/18 21:08	AIL	9/24/18 14:03
Maria Wu	9/24/18 ~~21:08~~ 1950		
	9/21		
	05/25/18 06 0545		09/25/18 0545