

PRE-DESIGN FIELD CHARACTERIZATION NORTHTOWN PLAZA BCP SITE NO. C915292 3097 SHERIDAN DRIVE AMHERST, NEW YORK

# **PREPARED FOR:**

Northtown Associates, LLC. 33 Boylston Street, Suite 3000 Chestnut Hill, Massachusetts

# PREPARED BY:

GZA GeoEnvironmental of New York Buffalo, New York

May 28, 2015 31.0056687.30

Copyright© 2015 GZA GeoEnvironmental of New York

# TABLE OF CONTENTS

1.0 Background		2
200	1	2
	k	
	ing and Sampling	
	tion, Development, and Sampling of Monitoring Wells	
_	or Intrusion Sampling	
•	g	
2.5 Investiga	ttion-Derived Waste	6
	ologic Conditions	
	Overburden Geology	
	Shallow Groundwater Hydrogeology	
	al Results	
	Analytical Results of Subsurface Soil Samples	
	Analytical Results of Shallow Groundwater Samples	
3.2.3	Analytical Results of Soil Vapor Intrusion Samples	8
4.0 Conclusion		9
List of Tables		
Table 1	Soil Boring Summary	
Table 2	Summary of Samples Collected	
Table 3	Summary of Analytical Results – Subsurface Soil Samples	
Table 4	Summary of Analytical Results – Porewater Samples	
Table 5	Summary of Analytical Results – Soil Vapor Intrusion Samples	
List of Figures		
Figure 1	Site Location Map	
Figure 2	•	
rigule 2	Sample Location Map	
Appendices		
rippendices		
Appendix A	Soil Boring Logs	
Appendix B	Well Construction Logs	
Appendix C	Field Forms	
Appendix D	Laboratory Analytical Data	
Appendix E  Appendix E	Limitations	
Appendix L	Limitations	

# 1.0 Background

In support of Northtown Associates LLC's purchase and redevelopment of the Northtown Plaza, located at 3045 Sheridan Drive, Amherst, NY, GZA GeoEnvironmental of New York (GZA) completed this Pre-Design Environmental Investigation. Northtown Associates LLC., is a prospective entrant with the New York State Department of Environmental Conservation (NYSDEC) into the State's Brownfield Cleanup Program (BCP). NYSDEC has designated the site as site No. C915292. In support of Northtown Associates LLCs application, and in consultation with NYSDEC and New York State Department of Health (NYSDOH), the Pre-Design Environmental Investigation was completed at one of the three Areas of Interest, AOI 3, of the BCP Site. AOI 3 includes a dry cleaning business at which active dry cleaning operations were conducted until the mid-1990s (when active operations ceased, to be replaced by a pickup/drop dry cleaning shop). Soil, soil vapor, and indoor air at AOI 3 contain chlorinated volatile organic compounds (CVOCs), in particular Tetrachloroethene (PCE) which is a known constituent of dry cleaning solvent. The objectives of the pre design environmental investigation were as follows:

- Further delineation of the vertical and lateral extent of CVOCs at concentrations above commercial soil cleanup objectives (CSCOs);
- Characterization of the shallow overburden relative to the presence and quality of water, including:
  - o Presence or absence of shallow groundwater;
  - o Depth to shallow groundwater saturation;
  - o Direction of flow of shallow goundwater, if present;
  - o Concentration of CVOCs in the shallow groundwater, if present.
- Further assessment of potential soil vapor intrusion throughout AOI 3.

The above data will be used to support the Interim Remedial Measures (IRM) Work Plan which is being submitted under separate cover by Northtown Associates LLC.

# 2.0 Summary of Work

GZA completed the pre-design field activities in two phases beginning on March 9 and ending on April 27, 2015. Field tasks completed include:

- Advancement of 25 additional soil probes using direct push drilling methods; 18 located exterior of the building and 7 located within the vacant tenant space #13. Details of the borings are summarized in Table 1;
- Installation of six additional 1-inch diameter, shallow water monitoring wells;
- Collection and analysis of:

- o 32 subsurface soil samples;
- o 7 Sub-slab soil vapor samples;
- o 7 indoor air samples, co-located with corresponding sub-slab soil gas samples;
- o 2 soil gas samples from beneath pavement;
- 5 pore water samples from the five wells that produced limited quantities of water; and
- o Requisite quality assurance/quality control (QA/QC) samples
- Survey of exterior sample locations and measurement of interior sample locations.

One of the six monitoring wells was developed but did not recharge prior to the sampling event.

# 2.1 Soil Boring and Sampling

A summary of soil borings is provided in Table 1 and soil boring logs, summarizing the general subsurface conditions that were observed at the investigation locations, are included in Appendix A. Soil borings were advanced using two primary direct-push methodologies, which include macro-core barrel sampling and dual tube soil sampling systems. Field efforts determined that using the dual-tube sampling methods was not effective in collecting soil cores in a timely manner, due to the relative density/hardness of the subsurface materials. In consultation with the drilling subcontractor and the NYSDEC, it was determined that the best method for quickly assessing the subsurface involved the use of the macro-core barrel sampling. Soil probes were completed by driving a 2.25-inch diameter by 48-inch long macro-core sampler continuously at 48-inch intervals to retrieve the soil samples. Dedicated and disposable acetate sampler liners were used inside of the macro-core sampler between sample intervals.

Following the removal of the soil core from the acetate liner, the soil cores were field screened with an Organic Vapor Meter (OVM) equipped with a photoionization detector (PID) with an 11.7 eV ultraviolet lamp. The OVM used was a MiniRae 3000 and was calibrated in accordance with manufacturer's recommendations. A gas standard of isobutylene at a concentration of 100 parts per million (ppm) was used for calibration. Ambient air at the Site was used to establish background organic vapor concentrations. OVM readings were recorded on the field boring log, at the completion of the boring; a soil sample was collected from the one foot interval with the highest recorded OVM reading for analysis. If no OVM readings were observed, then a random one foot soil sample was collected from a one foot interval between six and 14 feet. This depth range was selected based on results of previous investigations completed at this Site. A total of 30 field subsurface soil samples were collected and submitted to Paradigm Environmental Services of Rochester, New York for laboratory analysis.

# 2.2 Construction, Development, and Sampling of Monitoring Wells

After completion of a soil borings SP-52, 53, 54, 55, MW-8 and MW-9, a 1-inch, inner, diameter poly vinyl chloride (PVC) monitoring well with a "pre-packed" well screen with a slot size of 0.010 inches was installed in the borehole. Soil borings with planned monitoring wells were completed to 20 feet bgs. Planned well screen intervals were from 20 to 5 feet bgs, and PVC well riser from 5 feet to ground surface. Subsurface conditions resulted in a slight deviation from the planned installation depths. At MW-7, subsurface conditions required a shorter, 10-foot, screen length to be installed. After placement of the well screen at each well location, a 0.5 to 1-foot thick layer of 00N size sand pack was placed on top of the pre-packed well screens. Granular Bentonite was then placed on top of the sand pack, and brought up to one foot bgs. Concrete was then placed from 1 feet bgs to grade. Monitoring wells were finished with a flush mount road box set into the concrete flush to grade. Monitoring Well construction logs are provided in Appendix B.

Three days following the installation of the monitoring wells, the wells were gauged for the presence of water. Limited water volumes were observed in all six wells, which ranged in depth from five to 17 feet bgs, see Table 6 for depth to porewater measurements. Following the well gauging, what little water was in each well was removed using a peristaltic pump and dedicated tubing or dedicated bailers in an attempt to develop the wells. development of the wells was not possible due to the small volume of porewater in each well and very slow porewater recharge rates. Monitoring well development forms are provided in Appendix C. All of the monitoring wells were reported as being bailed dry as a result of the development efforts, and allowed three days to recharge prior to sampling. Monitoring wells were then sampled using the dedicated bailers or the peristaltic pump and dedicated tubing (low flow sampling was not possible due to the low water quantity). Water samples were highly turbid due to the clay till overburden and small quantity of pore water present in the well. MW-5, located south of the site building, did not recharge over the three day period and therefore could not be sampled. A field duplicate sample was collected during each of the two phases of investigation. During the first phase, MW-6 was duplicated and during the second phase MW-9 was duplicated. All water samples were submitted to Paradigm Environmental Services of Rochester, New York for laboratory analysis of CVOCs.

# 2.3 Soil Vapor Intrusion Sampling

Four types of air samples were collected as part of the soil vapor investigation: soil gas (SG), indoor air (IA), sub-slab soil vapor (SS) and outdoor air (OA) samples. The samples were collected via low-flow sampling canisters at a rate of 200 ml/min, identified in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 (NYSDOH Guidance Document)<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> "Final – Guidance for Evaluating Soil Vapor Intrusion in the State of New York". New York State Department of Health, Center for Environmental Health, Bureau of Environmental Exposure Investigation – October 2006.

Two soil gas sampling points were installed using direct push technology. The first soil gas point, identified as Soil Gas East, is located directly east of Giro Dry Cleaners (Tenant Number 14), beneath the parking lot. A western point, identified as Soil Gas West, was installed west of Tenant Number 13 (vacant space).

A six-inch soil gas stainless steel sampling point was installed at 8 feet bgs at Soil Gas East and at 4 feet bgs at Soil Gas West, as requested by the NYSDOH and relative to depth of pore water found in the nearest well (MW-6). The stainless steel sampling points is connected to 3/8-inch polyethylene tubing. Porous, inert backfill material (i.e. glass beads) were placed around the stainless steel well screen, and a bentonite seal was placed in the annular spacing on top of the sampling zone to ground surface. The bentonite seal was slowly hydrated during construction to ensure proper seal formation and prevent possible saturation of the sampling zone. The soil gas sampling points were completed with the construction of a well road box.

Seven sub-slab sampling locations in tenant spaces 7, 8, 9, 10, 11 and 12, and in the Total Automotive building to the west were advanced by drilling a ½-inch diameter hole through the concrete floor slab using a hammer drill. The maximum depth of the sampling hole was two-inches below the base of the concrete floors. Average thickness of concrete slabs was 4-inches.

After construction, three volumes (i.e. volume of sample probe and tubing) were purged prior to sampling for the soil gas and sub-slab sampling locations. Each sample point was tested, using Helium as a tracer gas to confirm that a surface seal was present, and that no atmospheric air was influencing the soil gas points. This was conducted by performing a Helium leak detection test. The helium test involved placing a shroud over the sampling point and filling the inside of the shroud with helium gas. A MGD-2002 Helium Leak Detector was connected to polyethylene sampling tubing allowing for draw of soil gas. The NYSDOH Guidance Document allows for up to 10% of the tracer gas to be detected within the sampling system and still be considered acceptable. No helium was detected.

Indoor air samples were collected at and coincident with each sub-slab vapor location. Indoor air samplers were placed at a minimum height of 4 feet above ground surface. A sampler was placed outdoors on a tri-pod at a height of 4 feet above the ground surface and upwind of the sampled building. The outdoor air sample for the sampling performed on March 10, 2015was located at the plaza entrance off of Eggert Road. The outdoor air sample for sampling conducted at the Total Automotive building on April 20, 2015 was located near the southwestern corner of that building. Field forms from the sub-slab sampling investigation are provided in Appendix C.

Prior to completing the air sampling investigations at each location, observations were made of the sampling area for products that were stored in the nearby vicinity that have the potential to create interference or bias in the air sampling results. For units sampled within the main building of AOI3, various sizes of unopened containers and dispensers for paint, turpentine, paint thinner, toner cartridges, penetrating lubricants, household cleaning supplies, bleach, wood polish, and carpet cleaner were noted in the tenant spaces that were sampled. Within

the sampled space of the Total Automotive building the following products were observed:

In the office where the air samples were collected:

- Exterior car wash detergent
- Brake life lubricant

In the service desk area west and adjacent to the office;

• car batteries

In the storage room north of and adjacent to the office:

- car batteries
- spray paint cans
- gallon cans of liquid, water-base, paint
- multiple sealed cases of motor oils, transmission fluids, and sealants, .

All soil gas, sub-slab vapor, indoor air, and outdoor air samples were collected using 1-liter soil gas canisters set with a negative vacuum for a sample draw time period of approximately eight hours. Twenty two samples in total (17 field and 5 QA/QC) were submitted to Centek Laboratories in Syracuse, New York for laboratory analysis.

# 2.4 Surveying

A Trimble GeoExplorer 6000XH Global Position System (GPS) was used to collect latitudinal and longitudinal coordinates of all exterior sample points for plotting. Data points were post-processed using the manufactures data collection and management software. Average horizontal accuracy of the GPS unit is 0.18125 feet.

# 2.5 Investigation – Derived Waste

All investigative derived waste was segregated and placed in labelled US DOT approved, 55-gallon drums and staged on the site for later off-site disposal at a NYSDEC approved and permitted facility.

# 3.0 Findings

# 3.1 Hydrogeologic Conditions

# 3.1.1 Overburden Geology

A total of 25 soil probes were completed at the Site. This is in addition to fifty-one soil borings previously completed across the entire Northtown plaza during the Phase II. A thin layer of fill, composed of reworked and compacted native soil material lies directly beneath the asphalt

pavement. Underlying the fill material is glacial till, which is laterally continuous and homogenous throughout the site. Soil boring logs from the previous investigation reconfirm the existing subsurface conditions of the Site. A typical sample of the glacial till is gray-brown to red-brown in color, and primarily consists of clay, with some fine sub-angular gravel, and little medium to coarse sub-angular sand. A few seams of a fine sand and silt and seams of clean fine gravel were observed in a few of the soil borings. Hardness of the glacial till could be described as very hard due to its compactness, difficulty in drilling, and amount of force required to penetrate a soil core with a thumb.

# 3.1.2 Shallow Groundwater Hydrogeology

Saturated groundwater conditions were not observed in any of the 25 soil borings. This is consistent with previous groundwater investigation at the Site, where groundwater was not observed until borings were well into deep gravel at approximately 55 feet below ground surface<sup>2</sup>. Soil borings contained moist soils at depth, grading from dry near the surface to moist between eight and 12 feet bgs. The glacial till underlying the Site has very low permeability and acts as a confining layer to the saturated gravels beneath. Based on the composition of the till layer and very slow to lack of water recharge to the wells completed in the till confining layer, water encountered in the shallow wells is not considered as groundwater from an aquifer but rather pore water from the tight clay till.

During our investigation perched groundwater was not observed, but it is plausible that perched groundwater may be present within the fill soils, particularly where the fill is loose and of higher permeability than the underlying till. Perched groundwater can be more prevalent following substantial or extended periods of precipitation and during seasonally wet periods.

# 3.2 Analytical Results

Soil and water samples were packed in an ice-filled cooler and sent to Paradigm Environmental Services Inc., (Paradigm) located in Rochester, New York. The air samples were sent to Centek Laboratory in Syracuse, New York. Typical chains of custody procedures were followed. Table 2 provides a summary of the analytical samples collected and the analyses completed. Laboratory analytical data packages are included in Appendix D.

# 3.2.1 Analytical Results of Subsurface Soil Samples

Thirty two samples were collected of subsurface soil and submitted for laboratory analysis via EPA Method 8260B for CVOCs only (See Table 3). CVOCs detected in one or more

<sup>&</sup>lt;sup>2</sup> "Phase II Environmental Site Assessment Northtown Plaza, Sheridan Drive, Eggert Road, and Bailey Avenue, Amherst, New York." Prepared for Northtown Associates, LLC by GZA GeoEnvironmental of New York, July 2014.

sample include: PCE and the breakdown products TCE, and Cis -1, 2 DCE. None of the detected concentrations of the compounds were above their Commercial Soil Cleanup Objectives (CSCO), with the exception of PCE in just two of the thirty two samples.

PCE was detected above the Industrial Soil Cleanup Objective (ISCO) at 458mg/kg in SP-56 from 14 to 15 feet bgs. SP-62 and its associated Field Duplicate (01) reported PCE concentrations above the CSCO at 275mg/kg and 168mg/kg respectively, at the depth of 16 to 17 feet bgs. These two locations with PCE exceedances are located behind the dry cleaner, see Figure 2. Data points adjacent to SP-56 and SP-62 were found to be below their CSCO, confirming that the areas of exceedance are both at significant depth and localized.

# 3.2.2 Analytical Results of Overburden Pore Water Samples

Based on the composition of the till layer and very slow to lack of water recharge to the wells completed in the till confining layer, water encountered in the shallow wells is not considered to be groundwater from an aquifer but rather pore water from the tight clay till. Since there are no standards or criteria for pore water, NYSDEC Class GA groundwater standards were used for discussion purposes only. CVOCs were detected above the NYSDEC Class GA criteria in two of the three pore water samples, (See Table 4). No CVOCs were detected in the sample collected from wells MW-4, MW-8, and MW-9. Well MW-5 was dry on the day of sample collection. PCE was detected at a concentration of 21,700µg/L in sample MW-6 and at 32,900µg/L in sample MW-7. TCE was reported at a concentration of 2,690µg/L in sample MW-6. TCE was not detected above method detection limits in sample MW-7. Cis-1,2-DCE was reported at a concentration of 2,960µg/L in sample MW-6 (Dup) and at 389µg/L in sample MW-7.

# 3.2.3 Analytical Results of Soil Vapor Intrusion Samples

Eight CVOCs were detected above method detection limits in one or more of the air samples collected, (See Table 5). Six of the eight CVOCs detected in both the indoor air and sub-slab samples are listed on one of the two soil vapor intrusion decision matrices included in the NYSDOH Guidance Document. These include:

- o PCE
- o TCE
- o Carbon Tetrachloride
- o Cis-1,2-DEC
- o 1,1,1-TCA
- Vinyl Chloride

None of the indoor air concentrations measured from within the main building of AOI3 for these compounds exceeded their respective Air Guidance Values (AGV) for PCE ( $100 \,\mu g/m^3$ ) and TCE ( $5 \,\mu g/m^3$ ). Importantly, based on the relative concentrations detected in the subslab samples within the main building of AOI3 versus corresponding indoor air samples, it is very unlikely that the CVOCs noted in indoor air are a result of soil vapor. Given the low concentrations detected in indoor air, the CVOCs noted may be the result of cleaning compounds or other anthropogenic sources associated with property usage.

The soil vapor sample collected from the Total Automotive building, west of AOI3, contained concentrations of PCE and related breakdown compounds of PCE at elevated concentrations. Indoor air collected from within the Total Automotive building did not contain CVOCs at concentrations of concern. PCE was detected at concentrations of 5.4µg/m³ and 8.5µg/m³ at the soil vapor points Soil Gas- East and Soil Gas-West, respectively.

# 4.0 Conclusions

- Subsurface soils to depths up to 24 feet consist of glacial till composed of clay with varying size and amounts of gravel and sand. Visual and manual examination of the subsurface soils illustrates a relatively hard and compacted subsurface which inhibits subsurface water flow.
- Of the total of 54 soil samples collected and analyzed from AOI 3 between the Phase II and the recent investigation, only four were in exceedance of the CSCOs. Two of the 32 soil samples collected from this most recent investigation had exceedances of CSCOs. The CSCO for PCE was exceeded at SP-62 (16-17) and SP-56 (14-15).
- Examination of the subsurface soil samples collected at the Site demonstrates four isolated areas of PCE impacts at depth in AOI3 that are of limited extent. The four data points are SP-23, SP-47, SP-56, and SP-62. The impacted depth intervals in exceedance of the CSCOs are at a depths ranging from six feet at SP-47 to seventeen feet SP-62. Soil samples collected from probes surrounding the four data points contained PCE at concentrations below the CSCO, illustrating the limited extent of the higher concentrations of PCE. This is also established by the fact that out of a total of fifty two samples collected and analyzed between the Phase II and the recent investigation, only four were in exceedance of the CSCOs.
- Subsurface exploration data reconfirms the observations noted in the Phase II investigation that the glacial till unit beneath the Site is a low permeability confining layer, and the water bearing zone is at significant depth (between 45 and 55 feet as noted in the Phase II). Moist soils observed in the zero to 24 feet depth at the Site yielded no to little pore water. Water samples collected were accordingly of very high turbidity are not representative of actual groundwater but are more so pore water or residual water maintained by capillary tension exerted by the soil pores.

- Soil gas samples collected near the east and west boundaries of AOI3 had low detections of PCE. The State of New York does not have any standards, criteria or guidance values for concentrations of volatile chemicals in subsurface vapors (either soil vapor or sub-slab vapor) and these values are well below the indoor/outdoor AGV.
- Sub-slab vapor samples compared with corresponding indoor air samples for tenants No.7, 8, 9, 10, 11, and 12 confirm that low concentrations of CVOCs observed in indoor air are likely not the result of soil vapor. Concentrations detected in the indoor air samples are likely due to indoor and/or outdoor sources (such as cleaning and supply products, which were observed by GZA). Accordingly, it is recommended that no further investigation is necessary with respect to these spaces.
- Sub-slab vapor collected from beneath the Total Automotive building to the west of AOI3 contained elevated concentrations of PCE and its breakdown products.



# Table 1 - Soil Boring Summary Pre-Design Field Characterization Northtown Plaza BCP Site No. C915292 Amherst, New York

Boring ID	Date	Final Depth (ft)	Well ID	Sample Interval	PID (ppm)
SP-52	3/10/2015	20	MW-4	8 -9 ft	0
SP-53	3/10/2015	20	MW-5	7 -8 ft	0
SP-54	3/10/2015	21	MW-6	8 -9 ft & 15 - 16 ft	49.1 & 62.2
SP-55	3/11/2015	20	MW-7	10 - 11 ft	27.3
SP-56	3/11/2015	24	NA	14 - 15 ft	2000
SP-57	3/11/2015	24	NA	12 - 13 ft	100.5
SP-58	3/11/2015	24	NA	11 - 12 ft	112.7
SP-59	3/11/2015	24	NA	13 - 14 ft & 20 - 21 f	28.1 & 62.5
SP-60	3/12/2015	6	NA	5 - 6 ft	6.6
SP-61	3/12/2015	20	NA	7 - 8 ft & 19 -20 ft	37.1 & 42.9
SP-62	3/12/2015	24	NA	16 - 17 ft	74.1
SP-63	3/12/2015	24	NA	8 - 9 ft	10.8
SP-64	3/12/2015	24	NA	8 - 9 ft & 20 - 21 ft	23.3 & 23.7
SP-65	3/12/2015	24	NA	16 - 17 ft	22.7
SP-66	3/12/2015	24	NA	12 - 13 ft	221
SP-67	3/12/2015	24	NA	15 - 16 ft	3.3
SP-68	3/13/2015	20	NA	7 - 8 ft & 16 - 17 ft	0
SP-69	3/13/2015	20	NA	12 -13 ft	0.8
SP-70	3/13/2015	20	NA	6 - 7 ft	0.4
SP-71	3/13/2015	20	NA	3 - 4 ft	0
SP-72	3/13/2015	20	NA	9 - 10 ft	5
SP-73	3/13/2015	20	NA	6 - 7 ft	0.1
SP-74	3/13/2015	11.5	NA	5 - 6 ft	0.3
MW-8	4/22/2015	20	NA	14 ft	0
MW-9	4/22/2015	20	NA	8 ft	0

# Table 2 Summary of Samples Collected Pre-Design Field Characterization Northtown Plaza BCP Site No. C915292 Amherst, New York

Location	Date Collected	Depth/ Interval (ft bgs)	VOCs EPA Method 8260-TCL	VOCs EPA Method TO-15
SOIL SAMPLES		(It ogs)	0200-TCL	10-13
SP-52	3/10/2015	8-9 ft	X	
SP-53	3/10/2015	7-8 ft	X	
SP-54	3/10/2015	8-9 ft	X	
SP-54	3/10/2015	15-16 ft	X	
SP-55	3/11/2015	10-11 ft	X	
SP-56	3/11/2015	14-15 ft	X	
SP-57	3/11/2015	12-13 ft	X	
SP-58	3/11/2015	11-12 ft	X	
SP-59	3/11/2015	13-14 ft	X	
SP-59	3/11/2015	20-21 ft	X	
SP-60	3/12/2015	5-6 ft	X	
SP-61	3/12/2015	7-8 ft	X	
SP-61	3/12/2015	19-20 ft	X	
SP-62	3/12/2015	16-17 ft	X	
FD-01	3/12/2015	16-17 ft	X	
SP-63	3/12/2015	8-9 ft	X	
SP-64	3/12/2015	8-9 ft	X	
SP-64	3/12/2015	21-22 ft	X	+
SP-65	3/12/2015	21-22 It 16-17 ft	X	
SP-65 SP-66	3/12/2015	16-17 ft 12-13 ft	X	
SP-67 SP-68	3/12/2015 3/13/2015	15-16 ft 7-8 ft	X X	
SP-68	3/13/2015	16-17 ft	X	
SP-69	3/13/2015	12-13 ft	X	
SP-70	3/13/2015	6-7 ft	X	
SP-71	3/13/2015	3-4 ft	X	
SP-72	3/13/2015	9-10 ft	X	
FD-02	3/13/2015	9-10 ft	X	
SP-73	3/13/2015	6-7 ft	X	
SP-74	3/13/2015	5-6 ft	X	
MW-8	4/22/2015	14 ft	X	
MW-9	4/22/2015	8 ft	X	
GROUNDWATER S	,		,	
MW-4	3/17/2015	NA	X	
MW-6	3/17/2015	NA	X	
Duplicate	3/17/2015	NA	X	
MW-7	3/17/2015	NA	X	
MW-8	4/27/2015	NA	X	
MW-9	4/27/2015	NA	X	
Duplicate	4/27/2015	NA	X	
VAPOR INTRUSION	N SAMPLES			
IA-1	3/10/2015	NA		X
SS-1	3/10/2015	NA		X
IA-2	3/10/2015	NA		X
SS-2	3/10/2015	NA		X
IA-3	3/10/2015	NA		X
SS-3	3/10/2015	NA		X
IA-4	3/10/2015	NA		X
SS-4	3/10/2015	NA		X
IA-5	3/10/2015	NA		X
DUPE-IA	3/10/2015	NA		X
SS-5	3/10/2015	NA		X
IA-6	3/10/2015	NA		X
MS/MSD	3/10/2015	NA		X
SS-6A	3/10/2015	NA		X
SS-6B	3/10/2015	NA		X
OA	3/10/2015	NA		X
Trip Blank	3/10/2015	NA		X
Soil Gas East	3/13/2015	NA NA		X
Soil Gas West	3/13/2015	NA NA		X
TA-SS-04202015	4/20/2015	NA NA		X
TA-IA-04202015	4/20/2015	NA NA		X
TA-IA-04202015 TA-OA-04202015	4/20/2015	NA NA		X
17-07-04202013	4/20/2013	INA	_1	Λ

# Notes:

- 1. Soil and water analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
- 2. Air sample analytical testing completed by Centek Laboratory in Syracuse, New York.
- 3. Field Duplicate 01 (FD 01) is associated with sample SP-62 (16 17 ft).
- 4. Field Duplicate 02 (FD 02) is associated with sample SP-72 (9 10 ft).
- 5. Duplicate sample is associated with MW-6.
- 6. IA = Inddor Air.
- 7. SS = Sub-Slab Sample.
- 8. OA = Outdoor Air Sample.
- 9. MS/MSD = Matrix Spike/Matrix Spike Duplicate collected with IA-6.
- 10. DUPE-IA = Field Duplicate associated with IA-5.

# Table 3 - Summary of Analytical Results - Subsurface Soils Pre-Design Characterization Report Northtown Plaza BCP Site No. C915292 Amherst, New York

Soil Boring ID	N	YSDEC Part 3	75	SP-52	SP-53	SP-54	SP-54	SP-55	SP-56	SP-57	SP-58	SP-59	SP-59	SP-60	SP-61
Sample Date	Soi	l Criteria (mg/l	(g))	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/11/2015	3/11/2015	3/11/2015	3/11/2015	3/11/2015	3/11/2015	3/12/2015	3/12/2015
Sample Depth	Unrestricted	Commercial	Industrial	8-9 ft	7-8 ft	8-9 ft	15-16 ft	10-11 ft	14-15 ft	12-13 ft	11-12 ft	13-14 ft	20-21 ft	5-6 ft	7-8 ft
<b>Volatile Organic Compounds - E</b>	PA Method 82	260 (mg/Kg)													
cis-1,2-Dichloroethene	0.25	500	1,000	2.71 J	<	<	<	<	<	<	<	<	<	29.6	<
Tetrachloroethene	1.3	150	300	0.029	0.056	4.01	56.6	1.83	458	9.57	24.4	105	82.6	0.026	0.837
Trichloroethene	0.47	200	400	<	<	<	<	<	<	<	<	<	<	<	<

#### Notes

- 1. Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
- 2. Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
- 3. ug/kg = part per billion.
- 4. NV = no value. NT = not tested.
- 5. **Bold** indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
- 6. Yellow shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
- 7. Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
- 8. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
- 9. < indicates compound not detected above method detection limits.
- 10. Field Duplicate 01 (FD 01) is associated with sample SP-62 (16 17 ft).
- 11. Field Duplicate 02 (FD 02) is associated with sample SP-72 (9 10 ft).

# Table 3 - Summary of Analytical Results - Subsurface Soils Pre-Design Characterization Report Northtown Plaza BCP Site No. C915292 Amherst, New York

Soil Boring ID	N	YSDEC Part 3'	75	SP-61	SP-62	FD-01	SP-63	SP-64	SP-64	SP-65	SP-66	SP-67	SP-68	SP-68	SP-69
Sample Date	Soi	l Criteria (mg/l	(g))	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/12/2015	3/13/2015	3/13/2015	3/13/2015
Sample Depth	Unrestricted	Commercial	Industrial	19-20 ft	16-17 ft	16-17 ft	8-9 ft	8-9 ft	21-22 ft	16-17 ft	12-13 ft	15-16 ft	7-8 ft	16-17 ft	12-13 ft
<b>Volatile Organic Compounds - E</b>	ands - EPA Method 8260 (mg/Kg)														
cis-1,2-Dichloroethene	0.25	500	1,000	<	<	<	32.4 J	<	<	<	<	<	<	<	<
Tetrachloroethene	1.3	150	300	97.9	275	168	0.861	21.4	109	36.6	58.5	70.8	0.012	0.03	0.003 J
Trichloroethene	0.47	200	400	<	<	<	113	<	<	<	<	<	<	<	<

#### Notes

- 1. Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
- 2. Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
- 3. ug/kg = part per billion.
- 4. NV = no value. NT = not tested.
- 5. **Bold** indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
- 6. Yellow shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
- 7. Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
- 8. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
- 9. < indicates compound not detected above method detection limits.
- 10. Field Duplicate 01 (FD 01) is associated with sample SP-62 (16 17 ft).
- 11. Field Duplicate 02 (FD 02) is associated with sample SP-72 (9 10 ft).

# Table 3 - Summary of Analytical Results - Subsurface Soils Pre-Design Characterization Report Northtown Plaza BCP Site No. C915292 Amherst, New York

Soil Boring ID	S I						FD-02	SP-73	SP-74	MW-8	MW-9
Sample Date	Soi	l Criteria (mg/l	(g))	3/13/2015	3/13/2015	3/13/2015	3/13/2015	3/13/2015	3/13/2015	4/22/2015	4/22/2015
Sample Depth							9-10 ft	6-7 ft	5-6 ft	14 ft	8 ft
<b>Volatile Organic Compounds - E</b>	PA Method 82	60 (mg/Kg)									
cis-1,2-Dichloroethene	0.25	500	1,000	<	<	<	<	<	<	<	<
Tetrachloroethene	1.3	150	300	0.055	0.021	0.122	0.378	0.013	0.01	<	<
Trichloroethene	0.47	200	400	<	<	<	<	<	<	<	<

#### Notes

- 1. Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
- 2. Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
- 3. ug/kg = part per billion.
- 4. NV = no value. NT = not tested.
- 5. **Bold** indicates value exceeds Unrestricted Use Soil Cleanup Objectives.
- 6. Yellow shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
- 7. Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
- 8. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
- 9. < indicates compound not detected above method detection limits.
- 10. Field Duplicate 01 (FD 01) is associated with sample SP-62 (16 17 ft).
- 11. Field Duplicate 02 (FD 02) is associated with sample SP-72 (9 10 ft).

# Table 4 Summary of Analytical Results - Pore Water Pre-Design Field Characterization Northtown Plaza BCP Site No. C915292 Amherst, New York

Sample ID	NYSDEC	MW-4	MW-6	Duplicate	MW-7	MW-8	MW-9	Duplicate
Sample Date	Class GA	3/17/2015	3/17/2015	3/17/2015	3/17/2015	4/27/2015	4/27/2015	4/27/2015
	Criteria(µg/L))	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
Volatile Organic Compound	ds - EPA Method	d 8260 TCL	. (μg/L)					
cis-1,2-Dichloroethene	5	<	2080	2960	389	<	<	<
Tetrachloroethene	5	<	21700	18500	31900	<	<	<
Trichloroethene	5	<	2690	2510	<	<	<	<

# Notes:

- 1. Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
- 2. Analytical testing completed by Paradigm Environmental, Inc., in Rochester, New York
- 3. New York State Department of Environmental Conservation Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) dated October 1993, revised June 1998, January 1999 errata sheet and April 2000 addendum.
- 4. J = Analyte detected below quanititation limits.
- 5.  $\mu$ g/L = part per billion (ppb).
- 6. Yellow shading indicates values exceeding NYSDEC Class GA groundwater criteria.
- 7. <= compound was not detected above method detection limit.
- 8. Duplicate sample is associated with MW-6.

# Table 5 Summaryof Analytical Results - Soil Vapor Intrusion Samples Pre-Design Field Characterization Northtown Plaza BCP Site No. C915292 Amherst, New York

Sample ID	IA-1	SS-1	IA-2	SS-2	IA-3	SS-3	IA-4	SS-4	IA-5	DUPE-IA	SS-5	IA-6	MS/MSD	SS-6A	SS-6B	OA	Trip Blank	Soil Gas East	t Soil Gas West	TA-SS-04202015	TA-IA-04202015	TA-OA-04202015
Sample Date	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/10/2015	3/13/2015	3/13/2015	4/20/2015	4/20/2015	4/20/2015
	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	μg/m <sup>3</sup>	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$								
Volatile Organic Compounds - EPA M	lethod TO-15	$(\mu g/m^3)$																				
1,1,1-Trichloroethane	<	<	<	0.71 J	<	3.2	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
1,1,2-Trichloroethane	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	8.7	<	<
1,2-Dichloroethane	<	<	<	<	<	<	0.57 J	< 0.61	2.3	2.1	< 0.61	5.5	6.9	3.1	< 0.61	<	<	<	<	<	<	<
Carbon tetrachloride	<	<	0.63	< 0.94	0.69	< 0.94	0.57	< 0.94	0.63	0.63	< 0.94	0.63	0.44	< 0.94	< 0.94	0.69	<	<	<	0.75	0.69	0.94
cis-1,2-Dichloroethene	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	430	<	<
Tetrachloroethene	1.8	2	11	2.6	1.2	<	2.2	<	1.1	1.1	<	1.1	<	<	0.88 J	<	<	5.4	8.5	2500	<	<
Trichloroethene	0.43	0.97	< 0.21	4.3	< 0.21	1.2	0.54	1.5	<	<	0.86	0.32	< 0.21	0.59 J	0.64 J	<	<	<	<	2000	<	<
Vinyl Chloride	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	0.66	<	<

# Notes:

- 1. Compounds detected in one or more samples are presented in this table. Refer to Appendix D for list of all compounds included in analysis.
- 2. Air sample analytical testing completed by Centek Laboratory in Syracuse, New York.
- μg/m³ = microgram per cubic meter.
   Samples collected were for an approximate 8-hour sample duration.
- 5. J =estimated concentration detected less than the reporting limit.
- 6. <= compound was not detected above reporting limit provided.</li>7. IA = Inddor Air.
- 8. SS = Sub-Slab Sample.
- 9. OA = Outdoor Air Sample.
- 10. MS/MSD = Matrix Spike/Matrix Spike Duplicate collected with IA-6.
- 11. DUPE-IA = Field Duplicate associated with IA-5.

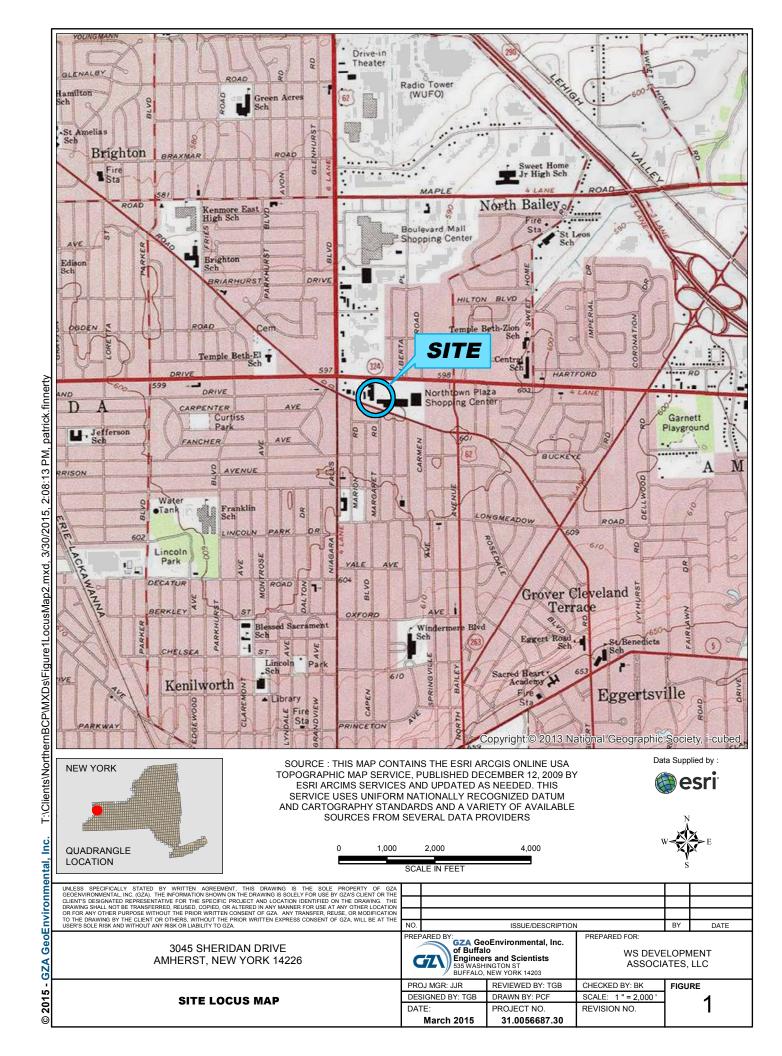
# Table 6 - Depth to Pore Water Pre-Design Field Characterization Northtown Plaza BCP Site No. C915292 Amherst, New York

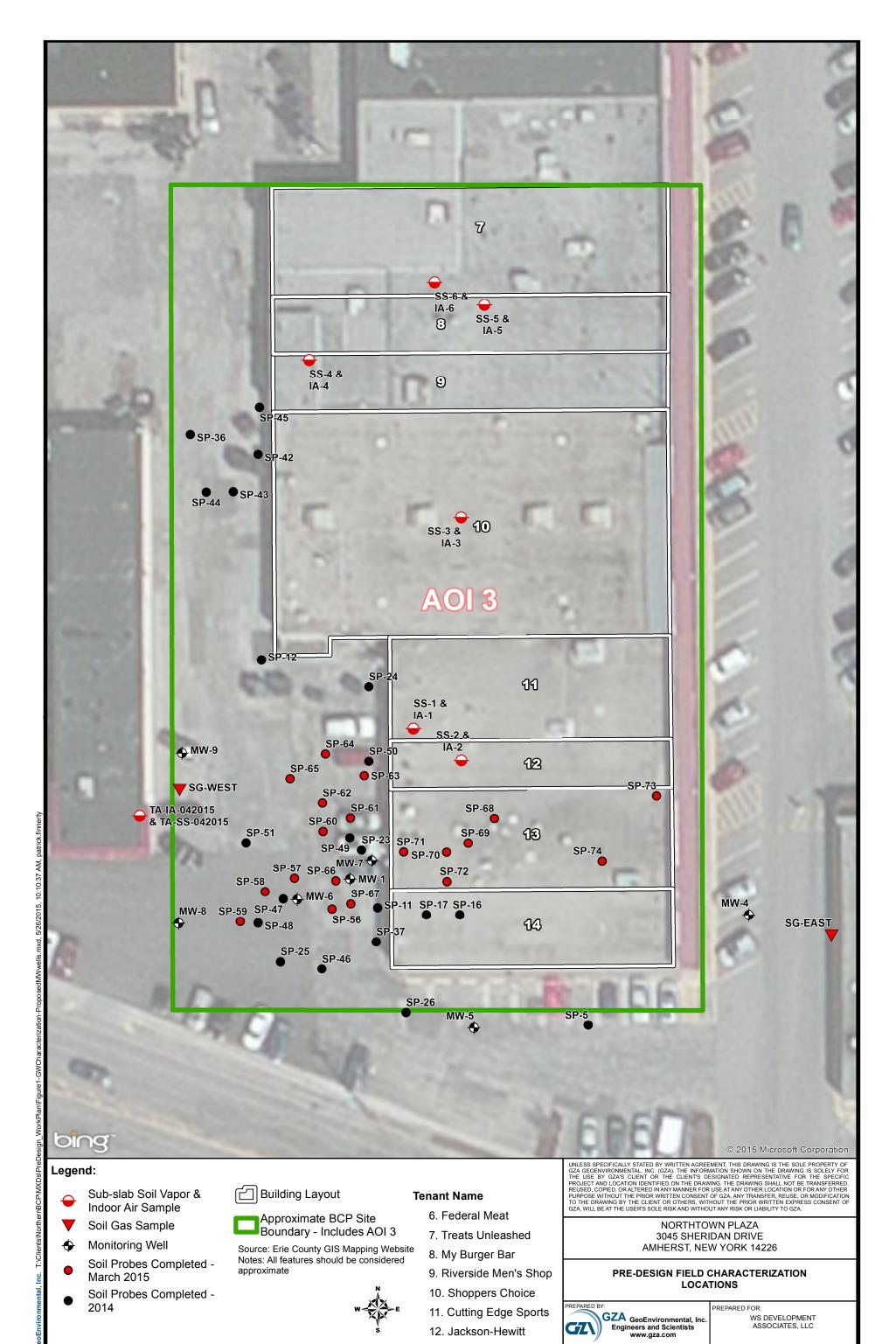
Well No.	SWL	Date	Elev.
MW-4*	14.48	3/17/2015	82.95
MW-5*	DRY	3/17/2015	
MW-6*	11.75	3/17/2015	84.82
MW-7*	9.98	3/17/2015	87.07
MW-8**	14.69	4/27/2015	79.36
MW-9**	5.82	4/27/2015	88.3

# Note

- \* Static water level recorded on March 17, 2015. A disposable bailer was used to collect each groundwater sample.
- \*\* Static water level was recorded on April 27, 2015. Peristaltic pump was used to purge and sample groundwater. Relative elevation survey for wells MW-8 and MW-9 performed on May 20, 2015.







13. Vacant

SCALE IN FEET

14. Giro Cleaners

REVIEWED BY:

DRAWN BY:

PROJECT NO.

31.0056687.30

DATE:

MAY 2015

CHECKED BY: BK

REVISION NO.

SCALE: 1 in = 30 ft

FIGURE

2

# APPENDIX A SOIL BORING LOGS

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-52 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

Date Start - Finish: 3/10/2015 - 3/10/2015 V. Datum:

H. Datum:

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push

Sampler Type: Dual Tube Sampler O.D. (in.): 1.25 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

Depth (ft)		San Depth	nple Pen.	Rec.	PID	Sample Description	Remark	Stratum  Description	Depth
(11)	No.	(ft.) 0-0.3	(in) 48	(in) 40	(ppm)	Modified Burmister S1: ASPHALT	%   r	Description	(
-	S1	0.3-1.8	+0	+∪	0.0	S1: ASPRIALT S1: FILL - Dark brown, SILT, little coarse Gravel, dry.		ASPHALT FILL	
-	S1	1.8-4			0.0	S1: Red brown, CLAY with Silt, some medium to coarse Sand,	-		
-					0.0	sub-angular, dry.			
-	S2	4-8	48	48	0.0	S2: Red brown, CLAY with Silt, some fine to coarse Gravel, little			
5 _					0.0	medium to coarse Sand, sub-angular, dry.			
-					0.0				
-					0.0				
-	S3	8-12	48	48	0.0	S3: Red brown, CLAY, little fine Gravel, some medium to coarse	1		
					0.0	Sand, sub-angular, dry, homogenous, penetration is hard with thumb.			
10 _					0.0	titing.			
-					0.0			GLACIAL TILL	
-	S4	12-14	24	24	0.0	S4: Red brown, CLAY, little fine Gravel, some medium to coarse			
-					0.0	Sand, sub-angular, dry to moist, homogenous, toughness softens as moisture increases.			
	S5	14-16	24	24	0.0	S5: Red brown, CLAY, little fine Gravel, some medium to coarse			
15 _					0.0	Sand, sub-angular, moist, homogenous.			
-	S6	16-18	24	24	0.0	S6: Red brown, CLAY, little fine Gravel, some medium to coarse			
-					0.0	Sand, sub-angular, moist, homogenous.			
	S7	18-20	24	24	0.0	S7: Red brown, CLAY, little fine Gravel, some medium to coarse			
20					0.0	Sand, sub-angular, moist, homogenous.			
					<u> </u>	End of exploration at 20 feet.	2		
-									
25									
	1 - 50	il sample co		d fron	n 8-9' at 10-	30 on 03/10/2015. Submitted for EPA Method 8260B analysis.			
REMARKS	2 - So	il boring cor	verte	d to a	1-inch grou	undwater monitoring well. See MW-4 Well Construction Report.			
REM									
Field	Scree	ning performion of same	ned w	ith PII	D equipped	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard.See tification procedures. Stratification lines represent approximate boundagradual.	Log Ke	y	

<sup>1 -</sup> Soil sample collected from 8-9' at 10:30 on 03/10/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil boring converted to a 1-inch groundwater monitoring well. See MW-4 Well Construction Report.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-53 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc. Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Date Start - Finish: 3/10/2015 - 3/10/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

		San	nnle						ᆠ十			
Depth (ft)	No	Depth		Rec. (in)	PID	Sample Description Modified Burmister			Remark		tratum scription	Depth
	No. S1	(ft.) 0-0.3	48	20	(ppm)	S1: ASPHALT			<u>r</u>		SPHALT	(
+	S1 S1	0.3-0.8 0.8-4			0.0	S1: FILL - Gray, fine GRAVEL, some fine to co S1: Brown/Black, CLAY, dry.	arse Sand, d	ry.				
-	01	0.0-4			0.0	OT. BIOWINDIAGN, OEAT, dry.					FILL	
-												
-	S2	4-8	48	48		S2: Red brown, CLAY, some medium to coars	e Sand. little f	fine				
5 _					0.0	Gravel, sub-angular, dry.	•					
-					0.0							
-					0.0				1			
-	S3	8-12	48	36	0.0	S3: Red brown, CLAY, some medium to coars	e Sand little t	fine				
-	55	0-12	10		0.0	Gravel, sub-angular, dry.	e Saria, iittie i					
10 _					0.0							
_					0.0							
_			40					_		CI A	CIAL TILL	
	S4	12-16	48	36	0.0	S4: Red brown, CLAY, some medium to coars Gravel, sub-angular, dry, homogenous.	e Sand, little i	line		OLA	SIAL TILL	
					0.0							
15 _					0.0							
	S5	16-20	48	42	0.0	S5: Red brown, CLAY, some medium to coars Gravel, sub-angular, dry, homogenous.	e Sand, little f	fine				
					0.0	3. 1 , 1 , 1 , 1 , 1 , 1 , 1 , 1 , 1 , 1						
					0.0							
20 _					0.0							
						End of exploration at 20 feet.			2			
25												
RKS						15 on 03/10/2015. Submitted for EPA Method 8 undwater monitoring well. See MW-5 Well Const						
REMARKS												
<u>~</u>												
L	Caraai	ning perform	204 14	ith DIF		with a 11.7 a)/ lamp calibrated to a 100 ppm isol						
Field	planet	ion of com	ilea w	IIII FIL	on and idea	with a 11.7 eV lamp calibrated to a 100 ppm isol tification procedures. Stratification lines represer gradual.	butylene stan	dard.See L	.og Ke	/		

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-54 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Date Start - Finish: 3/10/2015 - 3/10/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push Sampler Type: Dual Tube Sampler O.D. (in.): 1.25 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

		San	nnle						<u> </u>			
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID	Sample Description Modified Burmister			Remark		Stratum escription	Depth
-	S1 S1 S1 S1	0-0.3 0.3-1 1-4	48	32	(ppm) 0.0 0.0	S1: ASPHALT S1: FILL - Gray/Black, fine GRAVEL, some Sil coarse Sand, dry. S1: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, dry.					SPHALT FILL	C
5 _	S2	4-8	48	48	2.1 4.6	S2: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fir	ne				
					7.8							
_	S3	8-10	24	24	11.3 49.1	S3: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fir	ne	1			
0 _	S4	10-12	24	24	34.8 41.9	S4: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fin	ne				
_	S5	12-14	24	24	38.3	S5: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fir	ne		GLA	ACIAL TILL	
5 _	S6	14-16	24	24	11.6 62.2	S6: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fin	ne				
-	S7	16-20	48	48	10 9.1	S7: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.	medium to fir	ne	2			
20 _	00	00.04	12	10	10 8.1 6.1	On Dadharan Ol AV area for Oracl little	and the same					
-	S8	20-21	12	12	0.3	S8: Red brown, CLAY, some fine Gravel, little Sand, sub-angular, moist.  End of exploration at 21 feet.	medium to fin	ne	3			
25												
¥   ;	2 - Soi	I sample co	llecte	d fron	n 15-16' at 1	35 on 03/10/2015. Submitted for EPA Method 8 5:30 on 03/10/2015. Submitted for EPA Method ndwater monitoring well. See MW-6 Well Const	d 8260B analy	ysis.				
ield : for ex betwe	Screer planat een soi	ning performion of samp il types. Act	ned w ble de ual tra	rith PII scription	D equipped on and iden ons may be o	with a 11.7 eV lamp calibrated to a 100 ppm iso tification procedures. Stratification lines represer gradual.	butylene stan nt approximat	dard.See I e boundari	og Ke	у	SP-54	

- 1 Soil sample collected from 8-9' at 15:35 on 03/10/2015. Submitted for EPA Method 8260B analysis.
- 2 Soil sample collected from 15-16' at 15:30 on 03/10/2015. Submitted for EPA Method 8260B analysis.
  3 Soil boring converted to a 1-inch groundwater monitoring well. See MW-6 Well Construction Report.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

3/11/2015 - 3/11/2015

EXPLORATION NO.: SP-55 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc. Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Date

Type of Rig: Geoprobe Rig Model: 54UD

Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Date Start - Finish:

Groundwater Depth (ft.) Time Water Depth Stab. Time

		San	nple					돈	Ι.		
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister		Remark	Elev.	Stratum Description	Depth
	S1	0-0.3	48	42		S1: ASPHALT	th Cilt come			ASPHALT	0
_	S1	0.3-4			0.1	S1: FILL - Gray/Black/Brown, fine GRAVEL wit medium to coarse Sand, dry.	tn Siit, some				
_					0.1					FILL	
_					0.3						
5	S2	4-8	48	36	0.1 1.5	S2: Red brown, CLAY, some fine Gravel, little n Sand, sub-angular, dry.	nedium to coar	se			
					4.1	Garia, Sub-arigular, ary.					
					6.4						
					5.7						
_	S3	8-12	48	40	5.9	S3: Red brown, CLAY, some fine Gravel, little n Sand, sub-angular, moist.	nedium to coar	se			
10 _					5.9						
_					27.3			1			
-	0.4	40.40	40		21.8	OA Dadhaan Ol AV aana faa Oosad liilla				GLACIAL TILL	
_	S4	12-16	48	31	9.2	S4: Red brown, CLAY, some fine Gravel, little n Sand, sub-angular, moist.	nedium to coar	se		OL/ (OI/ IL TIEL	
_					6.5						
15 _					8.7						
_	S5	16-20	48	24		S5: Red brown, CLAY, some fine Gravel, little n	nedium to coar	20			
_	00	10-20		_	0.1	Sand, sub-angular, moist.	nediam to coal	30			
-					0.1						
_											
20 _						End of exploration at 20 feet.		2			2
-						·					
-											
-											
_											
25						<u> </u>					
3KS						10:05 on 03/11/2015. Submitted for EPA Method undwater monitoring well. See MW-7 Well Constr		s.			
REMARKS		-			-	-	·				
₹											
Field	Screer	ning perforn	ned w	ith PIE	) equipped	with a 11.7 eV lamp calibrated to a 100 ppm isob tification procedures. Stratification lines represent gradual.	outylene standa	rd.See Log l	Key	SP-55	

<sup>1 -</sup> Soil sample collected from 10-11' at 10:05 on 03/11/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil boring converted to a 1-inch groundwater monitoring well. See MW-7 Well Construction Report.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-56 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown Drilling Co.: Trec Environmental Inc. Geoprobe Location: See Plan Ground Surface Elev. (ft.):

H. Datum: V. Datum:

Date

Foreman: J. Ager

Final Geoprobe Depth (ft.): Date Start - Finish: 3/11/2015 - 3/11/2015

Type of Rig: Geoprobe Rig Model: 54UD

Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Time Water Depth Stab. Time

		San	nple				논		
epth (ft)	No.	Depth (ft.)		Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	∑ (£) Stratum  Description	Depth (ft.)
	S1	0-0.3	48	48		S1: ASPHALT		ASPHALT	0,
1	S1 S1	0.3-1 1-4			0.1	S1: FILL - Gray/Black, SILT with fine Gravel, some medium to coarse Sand, dry.		FILL	
1					0.1	S1: Red brown, CLAY, little fine Gravel and medium to coarse			
-					5.8	Sand, sub-angular, petroluem-like odor (2-4'), dry.			
-	S2	4-8	48	44	29.9	S2: Red brown, CLAY, some fine Gravel, little medium to coarse			
5 _					36	Sand, sub-angular, solvent -like odor, dry. Seam of fine to coarse Gravel, wet at 6.6 feet.			
-					7	Graver, wer at 0.0 feet.			
+					980				
-	S3	8-12	48	26	169	S3: Red brown, CLAY, some fine Gravel, little medium to coarse			
-					116	Sand, solvent-like odor, moist.			
10 _					365				
-					38				
-	S4	12-16	48	30		S4: Red brown, CLAY, some fine Gravel, little medium to coarse			
-					77	Sand, solvent-like odor, moist.		GLACIAL TILL	
-					647		1		
15 _					2000				
-	S5	16-20	48	34		S5: Red brown, CLAY, some fine Gravel and medium to coarse			
-					31	Sand, solvent-like odor, moist.			
-					77				
-					3.1				
20 _	S6	20-24	48	35		S6: Red brown, CLAY, some fine Gravel and medium to coarse			
-	00	20 24			270	Sand, moist.			
-					64				
-					0.1				
-						End of exploration at 24 feet.			2
25						Zina di dipinatani at Zi ribot.			
2	1 - Soi	l sample co	ollecte	d fron	n 14-15' at 1	12:05 on 03/11/2015. Submitted for EPA Method 8260B analysis.			
REMARKS									
RE									
	_	· · · · · · · · · · · · · · · · · · ·							
Field	Screer	ning pertorr	ned w	ith PIC	Degaipped	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard.Se tification procedures. Stratification lines represent approximate bound gradual.	e Loa Ke	ev	

<sup>1 -</sup> Soil sample collected from 14-15' at 12:05 on 03/11/2015. Submitted for EPA Method 8260B analysis.

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

3/11/2015 - 3/11/2015

EXPLORATION NO.: SP-57 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 2 H. Datum: V. Datum:

Foreman: J. Ager

Type of Rig: Geoprobe

Date Start - Finish:

Sampler Type: Macro

Groundwater Depth (ft.)

Time Water Depth Stab. Time

Date Rig Model: 54UD Sampler O.D. (in.): 1.75 Drilling Method: Direct Push Sampler Length (in.): 48 Rock Core Size: NA Sample Depth (ft.) Remark Depth Sample Description Modified Burmister Elev. Stratum Depth Pen. Rec. PID (ft) Description (in) (in) (ft.) No (ppm) S1 48 46 S1: ASPHALT 0,3 0-0.3 **ASPHALT** S1 0.3-1.3 S1: FILL - Gray/Black SILT with fine Gravel moist Λ Λ

	-	S1	0.3-1.3			0.0	S1: FILL - Gray/Black, SILT with fine Gravel, moist.		FILL	1.3
	-	S1	1.3-4			0.0	S1: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, dry.			
	-					0.0				
	-	S2	4-8	48	46	0.0	S2: Red brown, CLAY, some fine Gravel, little medium to coarse			
	5 _	5_				0.5	Sand, dry.			
	-					0.7				
	-					1.4				
	-	S3	8-12	48	42	5.7	S3: Red brown, CLAY, some fine Gravel, little medium to coarse			
	-		V			8.8	Sand, solvent-like odor, moist.			
	10 _					19.0				
	-					77.5				
	-	S4	12-16	48	42	12.3	S4: Red brown, CLAY, some fine Gravel, little medium to coarse	1		
	-		12 10			100.5	Sand, moist.	·	GLACIAL TILL	
	-					33.2				
	15 _					17.2				
	-	S5	16-20	48	42	26.9	S5: Red brown, CLAY, some fine Gravel, little medium to coarse			
	-	- 00	10-20			9.0	Sand, moist.			
	-					41.3				
	-					11.3				
	20 _	S6	20-24	48	42	6.5	S6: Red brown, CLAY, some fine Gravel, little medium to coarse			
	-		20 24			12.2	Sand, moist.			
	-					11.3				
2 PM	-	-				3.2				

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:12 PM 유럽과 REMARKS 있

End of exploration at 24 feet.

24

<sup>1 -</sup> Soil sample collected from 12-13' at 14:00 on 03/11/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-58 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Geoprobe Location: See Plan Drilling Co.: Trec Environmental Inc. Ground Surface Elev. (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Final Geoprobe Depth (ft.): Date Start - Finish: 3/11/2015 - 3/11/2015

Type of Rig: Geoprobe Rig Model: 54UD Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

			nple Pen.	Rec.	DID	Sample Description	Remark		Stratum	Depth
5	No.	Depth (ft.)	(in)	(in)	PID (ppm)	Modified Burmister	Ren	Elev.	Description	
	S1 S1	0-0.3 0.3-1.3	48	47	0.0	S1: ASPHALT S1: FILL - Gray/Black, SILT with fine Gravel, moist.		<u> </u>	ASPHALT FILL	1
	S1	1.3-4			0.0	S1: Red brown, CLAY, little fine Gravel and medium to coarse Sand, moist.			FILL	
-					0.0					
-	S2	4-8	47	48	0.0	S2: Red brown, CLAY, some fine Gravel, little medium to coarse				
5_					0.0	Sand, moist.				
-					0.5					
-					4.2					
= {	S3	8-12	44	48	2.5	S3: Red brown, CLAY, some fine Gravel, little medium to coarse				
-					7.2	Sand, moist.				
0 _					23.1					
-					112.7		1			
- 5	S4	12-16	43	48	27.3	S4: Red brown, CLAY, little fine Gravel and medium to coarse				
-					142.8	Sand, solvent-like odor, moist.			GLACIAL TILL	
-					54.8					
5 _					7.4					
_ - §	S5	16-20	48	24	3.1	S5: Red brown, CLAY, little fine Gravel and medium to coarse				
-					5.4	Sand, solvent-like odor, moist.				
-					87.5					
20										
_	S6	20-24	48	36	7.3	S6: Red brown, CLAY, little fine Gravel and medium to coarse Sand, moist.				
					41.7	Salle, mole.				
					1.2					
						End of exploration at 24 feet.				

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-59 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

Date Start - Finish: 3/11/2015 - 3/11/2015 H. Datum: V. Datum:

Type of Rig: Geoprobe Sampler Type: Macro Rig Model: 54UD Sampler O.D. (in.): 1.75 Drilling Method: Direct Push Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

epth		San	nple				돈		
(ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Stratum Description	Depth
	S1	0-0.3	48	38		S1: ASPHALT		ASPHALT	0
1	S1	0.3-1.9			0.7	S1: FILL - Gray/Black, SILT with fine Gravel, trace fragments of porcelein, moist.		FILL	1
+	S1	1.9-4			0.2	S1: Red brown, CLAY, some fine Gravel, little medium to coarse			
+					0.2	Sand, moist.			
5_	S2	4-8	48	43	0.0	S2: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, wet from 4 - 6 feet and moist from 6 - 8 feet.			
					0.0				
					0.0				
					0.3				
	S3	8-12	48	36	0.2	S3: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.			
0 _					1.5	,			
					3.5				
					0.0				
	S4	12-16	48	31	7.7	S4: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, no odor, moist. Seam of brown, fine GRAVEL with medium		GLACIAL TILL	
					28.1	to coarse Sand, wet, from 12 - 12.5 feet.	1	GLACIAL TILL	
5 _					9.1				
+	S5	16-20	48	30		S5: Red brown, CLAY, some fine Gravel, little medium to coarse			
+					2.4	Sand, moist.			
+					5.5				
+					9.9				
20 –	S6	20-24	48	18		S6: Brown, CLAY, little fine Gravel, little medium to coarse Sand,	2		
+					62.5	moist, soft penetration with thumb.			
-					12.8				
1									:
						End of exploration at 24 feet.			

<sup>1 -</sup> Soil sample collected from 13-14' at 16:35 on 03/11/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil sample collected from 20-21' at 16:40 on 03/11/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-60 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Groundwater Denth (ft )

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Date

Foreman: J. Ager

Type of Rig: Geoprobe

Drilling Method: Direct Push

Rig Model: 6620DT

Date Start - Finish:

Sampler O.D. (in.): 1.75

Sampler Length (in.): 48 Rock Core Size: NA

3/12/2015 - 3/12/2015 Sampler Type: Macro

Cicanan	ater Deptil (it.)	
Time	Water Depth	Stab. Time
	NIA	

Depth		San	nple			Sample Description			ark	≥: <u> </u>	0	£ (-
Depth (ft)	INU.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S1	0-0.3	48	26		S1: ASPHALT				<b></b>	ASPHALT	0,ź
-	S1	0.3-4			0.1	S1: FILL - Gray/Black, fine GRAVEL with Silt,	trace fine San	nd,				
_					0.1	moist.						
_												
											FILL	
5_	S2	4-6	24	18		S2: Brown, SILT, solvent-like odor, moist.						
" _	1				2.9				1			
-					6.6	End of exploration at 6 feet.						6
-												
_												
10 _												
10 _	1											
-												
-												
-	1											
_												
15 _												
' -	1											
-	-											
-	-											
_												
_												
20 _												
	1											
-	1											
-	1											
-	-											
25	]											
25												
	-	-										

REMARKS

1 - Soil sample collected from 5-6' at 09:25 on 03/12/2015. Submitted for EPA Method 8260B analysis.

Field Screening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See Log Key for explanation of sample description and identification procedures. Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual.

**SP-60** 

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:14 PM

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

**EXPLORATION NO.: SP-61** SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

H. Datum:

Date

Logged By: T. Bown

Geoprobe Location: See Plan Drilling Co.: Trec Environmental Inc. Ground Surface Elev. (ft.):

Date Start - Finish:

V. Datum: Final Geoprobe Depth (ft.):

3/12/2015 - 3/12/2015

Foreman: J. Ager

Type of Rig: Geoprobe Sampler Type: Macro Rig Model: 6620DT Sampler O.D. (in.): 1.75 Drilling Method: Direct Push Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Time Water Depth Stab. Time

<b>Donth</b>		San					눑	× ~	₽~
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Stratum  Description	Depth
	S1	0-0.3	48	30		S1: ASPHALT		\ ASPHALT	0,
_	S1	0.3-4			0.1	S1: FILL - Brown/Black, CLAY, some medium to coarse Sand, moist.			
-					0.1			FILL	
-					0.1				
5	S2	4-8	48	46		S2: Red brown, CLAY, little fine Gravel and medium to coarse			
Ŭ <u> </u>					0.3	sand, moist.			
-					1.7				
-					13.6		1		
-	S3	8-10	24	24	37.1	S3: Red brown, CLAY, little fine Gravel and medium to coarse			
- 10					2.0	sand, moist.			
_	S4	10-12	24	24	3.0	S4: Red brown, CLAY, little fine Gravel and medium to coarse			
-					9.0	sand, moist.			
-	S5	12-14	24	24	3.7	S5: Red brown, CLAY, little fine Gravel and medium to coarse		GLACIAL TILL	
-					4.7	sand, moist.			
-	S6	14-16	24	24	6.2	S6: Red brown, CLAY, little fine Gravel and medium to coarse			
l5 _					4.0	sand, moist.			
-	S7	16-18	24	24	3.0	S7: Red brown, CLAY, little fine Gravel and medium to coarse			
-					4.1	sand, moist.			
-	S8	18-20	24	24	4.1	S8: Red brown, CLAY, little fine Gravel and medium to coarse			
-					28.6	sand, moist.	2		,
20 _					42.9	End of exploration at 20 feet.			:
-									
-									
-									
25									
KS						10 on 03/12/2015. Submitted for EPA Method 8260B analysis. 10:20 on 03/12/2015. Submitted for EPA Method 8260B analysis.			
REMARKS	_ 00.								
묎									
Field	Screen	ning perform	ned w	ith PII	D equipped	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard.Se tification procedures. Stratification lines represent approximate bound gradual.	e Loa Ke	ev	

<sup>1 -</sup> Soil sample collected from 7-8' at 10:10 on 03/12/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil sample collected from 19-20' at 10:20 on 03/12/2015. Submitted for EPA Method 8260B analysis.

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York EXPLORATION NO.: SP-62 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown
Drilling Co.: Trec Environmental Inc.
Foreman: J. Ager

Inc. Geoprobe Location: See Plan Ground Surface Elev. (ft.):

Final Geoprobe Depth (ft.): 24

**Date Start - Finish:** 3/12/2015 - 3/12/2015

H. Datum: V. Datum:

Type of Rig: Geoprobe
Rig Model: 6620DT
Sampler C
Sampler C
Sampler L
Sampler L
Sampler L

Sampler Type: Macro
Sampler O.D. (in.): 1.75
Sampler Length (in.): 48
Rock Core Size: NA

Groundwater Depth (ft.)

Date Time Water Depth Stab. Time

Depth		San		_		Sample Description	ark	≥; <b>←</b>	Otractoria	£ ~
(ft)	No.	Depth (ft.)	Pen. (in)	(in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S1	0-0.3	48	36		S1: ASPHALT			ASPHALT	0,á
-	S1	0.3-3			0.0	S1: FILL - Gray/Black, CLAY, little fine Gravel, little medium to coarse Sand, moist.			FILL	
-					0.0				I ILL	
- ı	S1	3-4			0.0	S1: Red brown, CLAY, little fine Gravel, little medium to coarse				
-	S2	4-8	48	48		Sand, moist.				
5 _	-				9.6	S2: Red brown, CLAY, little fine Gravel and medium to coarse Sand, no odor, moist.				
-					1.5					
-					0.8					
-	S3	8-12	48	32	2.6	S3: Red brown, CLAY, little fine Gravel and medium to coarse				
-		0-12	10	02	26.6	Sand, no odor, moist.				
10 _					22.0					
_					21.8					
-					69.8					
-	S4	12-16	48	32	21.8	S4: Red brown, CLAY, little fine Gravel and medium to coarse Sand, no odor, moist.				
-					83.7				GLACIAL TILL	
15 _					110					
					110					
	S5	16-20	48	20	60.9	S5: Red brown, CLAY, little fine Gravel and medium to coarse Sand, solvent-like odor, moist.	1			
-						Gara, Solvent-like Gudi, Moist.				
					74.1					
20 _										
20 _	S6	20-24	48	5		S6: Red brown, CLAY, little fine Gravel and medium to coarse				
-					24.3	Sand, solvent-like odor, moist.				
-										
-										
-						End of exploration at 24 feet.				24
25						•				

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:15 PM 중절표 REMARKS 및

<sup>1 -</sup> Soil sample collected from 16-17' at 11:35 on 03/12/2015; Field Duplicate 01 is also associated with this sample. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-63 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Geoprobe Location: See Plan Drilling Co.: Trec Environmental Inc. Ground Surface Elev. (ft.):

Final Geoprobe Depth (ft.):

V. Datum:

H. Datum:

Foreman: J. Ager

Date Start - Finish: 3/12/2015 - 3/12/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

		Sar	nple				논		_
Depth (ft)	No.	Depth (ft.)		Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	∑i (±i Stratum Description	Depth
	S1	0-0.5	48	36		S1: ASPHALT		ASPHALT	O
	S1	0.5-2			0.0	S1: FILL - Red brown, CLAY, little fine Gravel and medium to coarse Sand, dry.		FILL	
	S1	2-4			0.0	S1: Black, CLAY, little medium to coarse Sand, trace roots, faint			
-					0.1	organic odor, moist.			
5 _	S2	4-8	48	44	0.0	S2: Red brown, CLAY, some fine Gravel, little fine to coarse Sand, moist.			
					0.0				
					3.3				
					3.0				
	S3	8-12	48	44	10.8	S3: Red brown, CLAY, some fine Gravel, little fine to coarse Sand, moist. Seam of medium Sand, wet, from 8 to 8.5 feet.	1		
o _					1.2				
-					0.4				
4	C4	10.16	10	,	0.4	SAL Ded brown CLAV come medium Sand maint			
	S4	12-16	48	4	0.0	S4: Red brown, CLAY, some medium Sand, moist.		GLACIAL TILL	
-								02.10% 2.1122	
5 _									
-	S5	16-20	48	46		S5: Red brown, CLAY, some medium to coarse Sand, moist.			
4	33	10-20	10	10	0.0	33. Neu brown, GEAT, Some medium to coarse Sand, moist.			
-					0.0				
-					0.0				
0 _	S6	20-24	48	10	0.0	S6: Red brown, CLAY, some medium to coarse Sand, moist.			
-	00	20 24			0.0	co. Ned brown, GEAT, some median to course cand, most.			
-					0.0				
-									
-						End of exploration at 24 feet.			
25						Zita di disploration at Zi ricot.			
2	1 - Soi	l sample co	ollecte	d fron	n 8-9' at 12:	15 on 03/12/2015. Submitted for EPA Method 8260B analysis.			
KEMAKKS									
RE									
- [									
	Coroc-	nina norfor	nod	ith DII	2 carrience	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard.See tification procedures. Stratification lines represent approximate boundagradual.	LOCK	N/	

<sup>1 -</sup> Soil sample collected from 8-9' at 12:15 on 03/12/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-64 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Date Start - Finish: 3/12/2015 - 3/12/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

epth			nple	D		Sample Description	Remark	2.0	Stratum	Depth
(ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Modified Burmister	Rem	Elev. (ft.)	Stratum Description	
- 1	S1 S1	0-0.3 0.3-4	48	39	0.0	S1: ASPHALT S1: FILL - Gray brown/black, CLAY, some fine Gravel, little		<u> </u>	ASPHALT	0
	0.	0.0 1			0.0	medium to coarse Sand, moist				
					0.0				FILL	
					0.0					
5 _	S2	4-8	48	45	2.8	S2: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
					3.6					
					5.0					
					9.7					
	S3	8-12	48	43	23.3	S3: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, some black organic soils observed, moist.	1			
0 _					12.1					
					2.3					
		10.10	10	40	1.0					
	S4	12-16	48	43	5.8	S4: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
					1.4				GLACIAL TILL	
5 _					0.4				OLAOIAL TILL	
-	05	40.00	48	22	0.4	OF Pullbarry Ol AV and for Count little and found				
	S5	16-20	40	22	22.5	S5: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
-					17.5					
-										
20 _	S6	20-24	48	26		S6: Red brown, CLAY, some fine Gravel, little medium to coarse	2			
-	30	20-24		20	23.7	Sand, moist.				
+					30.3					
+										
						End of exploration at 24 feet.				2
+										

<sup>1 -</sup> Soil sample collected from 8-9' at 13:30 on 03/12/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil sample collected from 20-21' at 13:35 on 03/12/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-65 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Date Start - Finish: 3/12/2015 - 3/12/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

Depth		Sam				Committee Description	호	· ~		€∼
(ft)			Pen.	Rec.	PID	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum	Depth (ft.)
	No.	(ft.)	(in)	(in)	(ppm)		ř	<u> </u>	Description	
	S1	0-0.4	48	36	0.0	S1: ASPHALT		<b>\</b>	ASPHALT	0,4
1	S1	0.4-1.8			0.0	S1: FILL - Brown, CLAY, some coarse Sand, little fine Gravel, dry.			FILL	1.8
-	S1	1.8-4			0.0	S1: Gray/brown, CLAY, some coarse Sand, little fine Gravel, dry.				
-					0.0					
-	S2	4-8	48	44		S2: Brown, CLAY, some fine Gravel, little medium to coarse Sand,				
5_	02	4-0	.0		0.4	dry to moist.				
_					3.5					
_					4.5					
					11.3					
	S3	8-12	48	24	3.8	S3: Brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
10 _					4.9					
					4.5					
	S4	12-16	48	24	0.0	S4: Brown, CLAY, some fine Gravel, little medium to coarse Sand,				
					8.9	moist.			GLACIAL TILL	
ا ،					13.2					
15 _										
-	S5	16-20	48	31		S5: Brown, CLAY, some fine Gravel, little medium to coarse Sand,	1			
-					22.7	moist.				
-					13.1					
-					2.9					
20 _			4.0							
	S6	20-24	48	30	4.5	S6: Brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
					2.1					
-					2.2					_
4						End of exploration at 24 feet.				2

REMARKS

1 - Soil sample collected from 16-17' at 14:25 on 03/12/2015. Submitted for EPA Method 8260B analysis.

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:18 PM

Field Screening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See Log Key for explanation of sample description and identification procedures. Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-66 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Date Start - Finish: 3/12/2015 - 3/12/2015

Type of Rig: Geoprobe Sampler Type: Macro Rig Model: 6620DT Sampler O.D. (in.): 1.75 Drilling Method: Direct Push Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

	San	nple				그룹	· _		<u>.</u>
No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth
S1	0-0.3	48	40		S1: ASPHALT	1 "		ASPHALT	0
				0.0			<u> </u>	FILL	
	1-4			0.0	or. Brown, oren, mae mile Graver, ary.				
				1.6					
S2	4-8	48	46		S2: Red brown. SILT. little fine Gravel. drv.				
				18.5	, , , , , , , , , , , , , , , , , , ,				
				11.3					
				7.7					
00	0.40	10	40	62.4	C2. Dad become CILT little fine Consult day.				
SS	0-12	40	40	162	53. Red blown, SIL1, little line Gravel, dry.				
				67.8					
S4	12-16	48	37		S4: Red brown, SILT, little fine Gravel, dry.	1		GLACIAL TILL	
S5	16-20	48	40	5.4					
				0.0					
S6	20-24	48	28	4.0	S6: Red brown, CLAY, some fine Gravel, little medium to coarse				
					Sand, moist.				
				0.0					
	S1 S1 S1 S2 S3	S1	S1     0-0.3     48       S1     0.3-1     1-4       S2     4-8     48       S3     8-12     48       S4     12-16     48       S5     16-20     48	S1     0-0.3     48     40       S1     0.3-1     1-4     48     40       S2     4-8     48     46       S3     8-12     48     40       S4     12-16     48     37       S5     16-20     48     40	S1       0-0.3       48       40       0.0         S1       0.3-1       0.0       0.0         1-4       0.0       1.6         S2       4-8       48       46         11.3       7.7       62.4         162       67.8       11.3         7.4       221       162         6.4       6.4       5.4         5.4       0.0       5.4         5.4       0.0       0.0	S1 0-0.3	S1	S1 0-0.3 48 40 0.0 51: ASPHALT S1: FILL - Black/brown, SILT, little medium Sand, dry. S1: Brown, SILT, little fine Gravel, dry.  S2 4-8 48 46	S1

<sup>1 -</sup> Soil sample collected from 12-13' at 15:20 on 03/12/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-67 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown Drilling Co.: Trec Environmental Inc. Geoprobe Location: See Plan Ground Surface Elev. (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Final Geoprobe Depth (ft.): Date Start - Finish: 3/12/2015 - 3/12/2015

Type of Rig: Geoprobe Rig Model: 6620DT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

1Anth		Sar	nple				🖆	. •		드
epth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth
	S1 S1	0-0.3	48	16	0.0	S1: ASPHALT		\	ASPHALT	C
_	31	0.3-4			0.0	S1: FILL - Gray, fine GRAVEL with Silt, dry.				
_					0.0				FII.I	
_									FILL	
_	S2	4-5	48	31		S2: Gray, fine GRAVEL with Silt, wet.				
5 _	S2	5-8			0.0	S2: Red brown, CLAY, little medium to caorse Sand, trace fine				
-					0.0	Gravel, moist.				
-					0.0					
-	S3	8-12	48	12		S3: Brown, CLAY with medium Sand, wet.				
-					0.0					
0 _										
-										
-	S4	12-16	48	43		S4: Brown, CLAY, some medium to coarse Sand, trace Gravel,				
_					1.0	moist to wet.				
_					1.2					
5 _					1.0		1		GLACIAL TILL	
_	S5	16-20	48	20	3.3	S5: Brown, CLAY, some medium to caorse Sand, wet.				
_	00	10-20			0.0	os. Biowii, obat, some medium to edoise odina, wet.				
_					0.0					
_										
20 _	S6	20-24	48	20		S6: Prouga CLAV some medium to econo Sand wat				
_	30	20-24	40	20	0.0	S6: Brown, CLAY, some medium to caorse Sand, wet.				
_					0.0					
-										
_										
25						End of exploration at 24 feet.				
247	1 - Soi	l sample co	ollecte	d fron	n 15-16' at	16:30 on 03/12/2015. Submitted for EPA Method 8260B analysis.				
KEMAKKS										
ᇫ										
Field	Screer	ning perforr	ned w	ith PI	Degaipped	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard.Sec tification procedures. Stratification lines represent approximate bound- gradual.	e Loa K	ev		

<sup>1 -</sup> Soil sample collected from 15-16' at 16:30 on 03/12/2015. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-68 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

3/13/2015 - 3/13/2015 Date Start - Finish:

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Date Time Water Depth Stab. Time

Depth (ft.) 0-0.4 0.4-4 4-8	(in) 48 48	Rec. (in) 38	PID (ppm)  0.0  0.0  0.0  0.0	Sample Description Modified Burmister  S1: Concrete Floor : FILL - Red brown, SILT with fine Sand, dry.  S2: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, dry to moist.	Remark	Elev. (ft.)	Stratum Description CONCRETE	O Depth
0-0.4 0.4-4	48	38	0.0 0.0 0.0	: FILL - Red brown, SILT with fine Sand, dry.  S2: Red brown, CLAY, some fine Gravel, little medium to coarse			CONCRETE	0
4-8		48	0.0 0.0	S2: Red brown, CLAY, some fine Gravel, little medium to coarse				
		48	0.0					
		48	0.0					
		48						
8-12	40			Sand, dry to moist.				
8-12	40							
8-12	40		0.0					
8-12	40		0.0		1			
	48	12	0.0	S3: Red brown, CLAY, some medium to coarse Sand, moist.				
			0.0					
							GLACIAL TILL	
12-16	48	20		S4: Red brown, CLAY, some medium to coarse Sand, moist.				
			0.0					
			0.0					
16-20	48	30		S5: Red brown, CLAY, some fine Gravel, little medium to coarse	2			
			0.0	Sand, moist.				
			0.0					
			0.0					
				End of exploration at 20 feet.				
oil sample	collecte	d from	n 7-8' at 09:	30 on 03/13/2015. Submitted for EPA Method 8260B analysis.				
oil sample	collecte	d from	n 16-17' at (	09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.				
	ormed w mple des Actual tra	rith PIE scription	Dequipped on and ider ns may be	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. Sentification procedures. Stratification lines represent approximate boundardual.	e Log Ko aries	ЭУ	SP-68	
	oil sample	oil sample collecte	oil sample collected from	oil sample collected from 16-17' at	oil sample collected from 7-8' at 09:30 on 03/13/2015. Submitted for EPA Method 8260B analysis. Soil sample collected from 16-17' at 09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.  Sening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. Sention of sample description and identification procedures. Stratification lines represent approximate boundabilitypes. Actual transitions may be gradual.	oil sample collected from 16-17' at 09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.	oil sample collected from 7-8' at 09:30 on 03/13/2015. Submitted for EPA Method 8260B analysis. oil sample collected from 16-17' at 09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.  ening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See Log Key tion of sample description and identification procedures. Stratification lines represent approximate boundaries oil types. Actual transitions may be gradual.	oil sample collected from 16-17' at 09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.

<sup>1 -</sup> Soil sample collected from 7-8' at 09:30 on 03/13/2015. Submitted for EPA Method 8260B analysis.

<sup>2 -</sup> Soil sample collected from 16-17' at 09:35 on 03/13/2015. Submitted for EPA Method 8260B analysis.

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York EXPLORATION NO.: SP-69
SHEET: 1 of 1
PROJECT NO: 31.0056687.30
REVIEWED BY: J. Richert

Logged By: T. Bown

**Drilling Co.:** Trec Environmental Inc.

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 2 H. Datum: V. Datum:

Date

Foreman: J. Ager

**Date Start - Finish:** 3/13/2015 - 3/13/2015

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA Groundwater Depth (ft.)
Time Water Depth Stab. Time

	San	nple					1	돈			
No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)				Rema	Elev. (ft.)	Stratum Description	Depth (ft.)
S1	0-0.4		30							CONCRETE	0,4
S1	0.4-4	48		0.0 0.0 0.0	S1: FILL - Brown, SILT with fine to medium S	and, dry.					
S2	4-8	48	48	0.0	S2: Red brown, CLAY, some fine Gravel, little Sand, dry to moist.	medium to co	arse				
S3	8-12	48	24		S3: Red brown, CLAY, some medium to coars	se Sand, mois	st.				
S4	12-16	48	16	0.5 0.8	S4: Red brown, CLAY, some medium to caors	se Sand, mois	st.	1		GLACIAL TILL	
S5	16-20	48	44	0.0 0.0 0.0	S5: Red brown, CLAY, some medium to caors	e Sand, mois	st.				
				0.0	End of exploration at 20 feet						20
					End of exploration at 20 feet.						
	\$1 \$1 \$2 \$3	No. Depth (ft.) S1 0-0.4 S1 0.4-4  S2 4-8  S3 8-12  S4 12-16	No. (ft.) (in) S1 0-0.4 48 S1 0.4-4 48  S2 4-8 48  S3 8-12 48  S4 12-16 48	Depth (ft.)   Pen.   Rec. (in) (in)     S1	No.         Depth (ft.) (ft.) (in) (in) (in) (in) (in) (in) (in) (in	Depth (ft.)	No.   Depth (ft.)   Pen   Rec. (in) (in) (in) (ppm)   Sample Description   Modified Burmister	No.   Depth (ft.)   Pen (ft.)   (in) ((in) (ppm)   Sample Description Modified Burmister	No.   Depth (ft.)   Pen. (ft.) (in) (in) (pm)   Sample Description   Modified Burmister	S1       0-0.4       48       30       0.0       S1: Concrete Floor         S1       0.4-4       48       0.0       S1: FILL - Brown, SILT with fine to medium Sand, dry.         S2       4-8       48       48       S2: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, dry to moist.         S3       8-12       48       24       0.0       S3: Red brown, CLAY, some medium to coarse Sand, moist.         S4       12-16       48       16       S4: Red brown, CLAY, some medium to caorse Sand, moist.       1         S5       16-20       48       44       S5: Red brown, CLAY, some medium to caorse Sand, moist.       1         S5       16-20       48       44       S5: Red brown, CLAY, some medium to caorse Sand, moist.       1	S1       0.0.4       48       30       0.0       S1: Concrete Floor         S1       0.44       48       30       0.0       S1: FILL - Brown, SILT with fine to medium Sand, dry.         S2       4-8       48       48       S2: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.         S3       8-12       48       24       0.0       0.1         0.1       0.2       S3: Red brown, CLAY, some medium to coarse Sand, moist.       GLACIAL TILL         S4       12-16       48       16       0.5         0.8       S5: Red brown, CLAY, some medium to caorse Sand, moist.       1         S5       16-20       48       44       0.0         0.0       0.0       0.0         0.0       0.0

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:21 PM 중절표 REMARKS 및

1 - Soil sample collected from 12-13' at 10:40 on 03/13/2015. Submitted for EPA Method 8260B analysis.

Field Screening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See Log Key for explanation of sample description and identification procedures. Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-70 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown Foreman: J. Ager

Geoprobe Location: See Plan Drilling Co.: Trec Environmental Inc. Ground Surface Elev. (ft.):

Final Geoprobe Depth (ft.):

Date Start - Finish: 3/13/2015 - 3/13/2015 H. Datum: V. Datum:

Date

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Time Water Depth Stab. Time

		0						L .	$\overline{}$			
Depth (ft)	No.	San Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister			Remark	Elev. (ft.)	Stratum Description	Depth
	S1 S1	0-0.4 0.4-4	48	36	0.1	S1: Concrete Floor S1: FILL - Red brown, CLAY with fine Sand, m	noiet			\	CONCRETE	(
	51	0.4-4			0.1	31. FILE - Ned Blown, OLAT Will line Sand, III	ioist.					
					0.1							
_			4.0									
5 _	S2	4-8	48	46	0.2	S2: Red brown, CLAY, some fine Gravel, little m Sand, moist.	nedium to coa	arse				
_					0.4				1			
_					1.2				'			
-	S3	8-12	48	0	0.4	S3: No Recovery.						
-						,						
10 _											GLACIAL TILL	
-												
-	S4	12-16	48	38	0.4	S4: Red brown, CLAY, some fine Gravel, little m	nedium to coa	arse				
					0.1 0.1	Sand, moist.						
15 _					0.1							
_		40.00	40		0.0							
-	S5	16-20	48	30	0.3	S5: Red brown, CLAY, some fine Gravel, little manner Sand, moist.	nedium to coa	arse				
_					0.1							
-												
20 _						End of exploration at 20 feet.						
-												
-												
-												
25												
S	1 - Soi	il sample co	ollecte	d fron	n 6-7' at 11 <sup>.</sup>	30 on 03/13/2015. Submitted for EPA Method 82	%0B analysis					
REMARKS												
REN												
	Soros	ning porfers	nod	ith Dir	) odnipaca	with a 11.7 eV lamp calibrated to a 100 ppm isob tification procedures. Stratification lines represent gradual.	utylono otopo	dard Sac	Log	'ov		

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York EXPLORATION NO.: SP-71 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown
Drilling Co.: Trec Environmental Inc.
Foreman: J. Ager

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):

Final Geoprobe Depth (ft.): 20

**Date Start - Finish:** 3/13/2015 - 3/13/2015

H. Datum: V. Datum:

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

_		Sam	nple				논		<u> </u>	
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S1	0-0.4	48	40		S1: Concrete Floor		<b></b>	CONCRETE	0,4
-	S1	0.4-4			0.0	S1: FILL - Brown, CLAY, Some medium to coarse Sand, dry to moist.				
-					0.0	most.				
-					0.0		1			
	S2	4-8	48	46	0.0	S2: Red brown, CLAY, some medium to coarse Sand, moist.				
5 _					0.0					
-					0.0					
-					0.0					
-	S3	8-12	48	44	0.0	S3: Red brown, CLAY, some medium to coarse Sand, little fine				
-					0.0	Gravel, moist.				
10 _					0.0				GLACIAL TILL	
-					0.0					
-	S4	12-16	48	38	0.0	S4: Red brown, CLAY, some fine Gravel, little medium to coarse				
-					0.0	Sand, moist.				
45					0.0					
15 _					0.0					
-	S5	16-20	48	36		S5: Red brown, CLAY, some fine Gravel, little medium to coarse				
-					0.0	Sand, moist.				
-					0.0					
20					0.0					20
20 _						End of exploration at 20 feet.				
-										
-										
-										
25										
		I.				<u>I</u>		1		

REMARKS

1 - Soil sample collected from 3-4' at 13:15 on 03/13/2015. Submitted for EPA Method 8260B analysis.

Field Screening performed with PID equipped with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See Log Key for explanation of sample description and identification procedures. Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual.

**SP-71** 

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:22 PM

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

3/13/2015 - 3/13/2015

EXPLORATION NO.: SP-72 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.
Foreman: J. Ager

Geoprobe Location: See Plan Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.): 20 H. Datum: V. Datum:

Type of Rig: Geoprobe Rig Model: 54LT

Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Date Start - Finish:

	1	Sam	nple				논	l .		
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
-	S1 S1	0-0.4 0.4-4	48	41	0.3	S1: Concrete Floor S1: FILL - Brown, CLAY, some fine Gravel, little medium to coars Sand, solvent-like odor, dry.			CONCRETE	0,4
_					1.1					
5	S2	4-8	48	46	0.6	S2: Red brown, CLAY, some fine Gravel, little medium to coarse				
_					0.8 2.0	Sand, solvent-like odor, dry to moist.				
-					3.0					
-	S3	8-12	48	44	0.8	S3: Red brown, CLAY, some fine Gravel, little medium to coarse				
-					1	Sand, solvent-like odor, dry to moist.	1			
10 _					5				GLACIAL TILL	
-					3 1					
_	S4	12-16	48	28	3.2	S4: Red brown, CLAY, some fine to medium Sand, trace fine Gravel, moist.				
-					1					
15 _										
-	S5	16-20	48	30		S5: Red brown, CLAY, some fine Gravel, little medium to coarse				
-					0.1	Sand, moist.				
_					0.1 0.1					
20 _						End of available at 20 feet				20
-						End of exploration at 20 feet.				
-										
25										
25										
ıΤ										

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:23 PM 중절표 REMARKS 및

<sup>1 -</sup> Soil sample collected from 9-10' at 14:05 on 03/13/2015; Field Duplicate 02 is also associated with this sample. Submitted for EPA Method 8260B analysis.

**GZA** GeoEnvironmental, Inc. Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York

EXPLORATION NO.: SP-73 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown

Drilling Co.: Trec Environmental Inc.

Ground Surface Elev. (ft.): Final Geoprobe Depth (ft.):

Geoprobe Location: See Plan

H. Datum: V. Datum:

Date

Foreman: J. Ager

Date Start - Finish: 3/13/2015 - 3/13/2015

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push

Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

Groundwater Depth (ft.) Time Water Depth Stab. Time

		Sar	nple				논			
epth (ft)	No.	Depth (ft.)		Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth
	S1	0-0.4	48	40		S1: Concrete Floor	_		CONCRETE	
	S1	0.4-4			0.1	S1: FILL - Brown, CLAY, little fine to medium Sand, trace fine Gravel, dry.				
-					0.1				GLACIAL TILL	
-					0.1					
5	S2	4-8	48	43	0.1	S2: Brown, CLAY, little fine to medium Sand, trace fine Gravel, dry				
٦					0.1	to moist.				
-					0.1		1			
					0.1					
-	S3	8-12	48	26	0.1	S3: Red brown, CLAY, some fine Gravel, little fine to medium				
					0.1	Sand, moist.				
10 _					0.1					
-	S4	12-16	48	20		S4: Red brown, CLAY, little fine Gravel, little fine to medium Sand,				
-					0.1	moist.				
_     15					0.1					
	S5	16-20	48	40		S5: Red brown, CLAY, little fine Gravel, little fine to medium Sand,				
-					0.1	moist.				
-					0.1					
-					0.1					
20 _						End of exploration at 20 feet.				
-						Ella di exploration al 20 leet.				
-										
-										
-										
25										
KEMAKKS	1 - Soi	l sample co	ollecte	d fron	า 6-7' at 15:	25 on 03/13/2015. Submitted for EPA Method 8260B analysis.				
	Screer	ning perforr	ned w	ith PII	) equipped	with a 11.7 eV lamp calibrated to a 100 ppm isobutylene standard. See tification procedures. Stratification lines represent approximate boundagradual.	Loa K	ev		

GZA
GeoEnvironmental, Inc.
Engineers and Scientists

Northtown Associates LLC Northtown Plaza BCP Site Amherst, New York EXPLORATION NO.: SP-74 SHEET: 1 of 1 PROJECT NO: 31.0056687.30 REVIEWED BY: J. Richert

Logged By: T. Bown
Drilling Co.: Trec Environmental Inc.

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):

H. Datum: V. Datum:

Foreman: J. Ager

Final Geoprobe Depth (ft.): 11.5

Date Start - Finish: 3/13/2015 - 3/13/2015

Type of Rig: Geoprobe Rig Model: 54LT Drilling Method: Direct Push Sampler Type: Macro Sampler O.D. (in.): 1.75 Sampler Length (in.): 48 Rock Core Size: NA

		Sam	ıple				돈			
Depth (ft)	No.	Depth (ft.)	Pen. (in)	Rec. (in)	PID (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.)	Stratum Description	Depth (ft.)
	S1	0-0.4	48	46		S1: Concrete Floor	_	<u> </u>	CONCRETE	0,4
-	S1	0.4-4			0.1	S1: FILL - Brown, CLAY, some fine to coarse Sand, trace fine Gravel, dry.				
-					0.0	, , , ,			GLACIAL TILL	
-					0.1					4
5	S2	4-8	48	46	0.1	S2: Red brown, CLAY, some fine Gravel, little medium to coarse				
					0.3 0.2	Sand, dry.	1			
					0.2					
_					0.1					
_	S3	8-11.5	42	40	0.1	S3: Red brown, CLAY, some fine Gravel, little medium to coarse Sand, moist.				
10 _					0.1					
_					0.1					
-						End of exploration at 11.5 feet.				
-										
-										
15 _										
-										
-										
-										
20 _										
_										
-										
- 25										
25										

 $1-Soil\ sample\ collected\ from\ 5-6'\ at\ 15:55\ on\ 03/13/2015.\ Submitted\ for\ EPA\ Method\ 8260B\ analysis.$ 

REMARKS

GZA TEMPLATE GEOPROBE; 3/31/2015; 3:45:24 PM

## Monitoring Well Installation Northtown Plaza Amherst, New York

Boring No. MW-8 Flie No. 31.0056687.30 Checked By: JR

ORIL			Jim A			BORING LOCATION GROUND SURFACE ELE		DAT	· UM		
STAF	T DATE:	4/22/20	15 END	DATE: 4/22/2	015	GZA GEOENVIRONMEN	TAL REPRES				
П		W.	ATER LEV	EL DATA		TYPE OF DRILL RIG		Geof	robe 6620 AT		1
Г	DATE	TIME	WATER	CASING	NOTES	CASING SIZE AND DIAM	ETER				
	1/20/15		2014	I'AVL		OVERBURDEN SAMPLIN	IG METHOD	Direct Push			
-	179011.5	1.2.40		7 7 7 0					bla		
-						ROCK DRILLING METHO	טו	Not Applica	oie	•	
											ı
D											
Ε			SAMP	ı F		SAMPLE DESCRIPTION		WELL	WELL	ΙοΙ	
			0, 1111			Grain EE DEGGTAN TIGHT	INIC	TALLATION	INSTALLATION	ΙvΙ	
	T	T				<u> </u>					
T	BLOWS	NO.	DEPTH	N-VALUES	RECOVERY		_	NAGRAM	DESCRIPTION	M	
н	(/6")		(FT)	/RQD	(%)					(ppm)	
	5-1		0-2		50	Acobalt (3-10/45)	838888	200000000000000000000000000000000000000		0,5	-
٦ŀ	-		0 0.			Sphall (3" INCE)	88888	<del>****</del> 18888881	1	10,-	1
1			-			DOCK Brown / Rlar Kelle	100000	1000000	←——		
						1.11		333323			
2						DAIND, I HIE THEME!	A 1888	1888	<b>★</b>	0	
	2-2		7-4		50	NT. SIT, MOIST FA		1 18881			
3						BETT STUTION	1000	[888]	1" PMicrowell installed Screened- w/pre-Sand pack		
Ť						Brown Silty CLAY,	1	1	1 + 1,110 to mell		
.,⊢		_	-			Vr. Sand Jr. Brave			1 istalled		
4						moist (NATIVE)			1	0	
L	5-3		4-6		100	MOIS ( (MINE)		1 1 1	«Screened-		10.
5									1- 0 /		
г						i a		1 1 1	W/ Are- Dang		
6		-				Î		1 1 1	neck		
~H	5.4		6-8		100	ri .		1 1 1	Facic	101	
H	2-1	<del></del>	60-0		100	i i			- 5- 10 has		
7						Į.		1 1 1	2 00 100		
						ļ.			L C. JA-L		
8						ľ.		+	- 5-20 bgs		
	5-5		R-10	1	100	i)			(OON Sand)	101	
9			1.0		100			1 1 1			
" -						i i		4	+ to 4 bas		
H							- 57		T " 1 53		
10						6		1 1 1		,	
	5-6		11-12		100			1 1 1		0	
11									+ · Medium.		
						ľ l		1 1 1	1 B. haite		
12						S .		8	Den with		
	, -1		11-14		100	6		1 1 1	1 Chips	101	
	5-7		2-17		100	b c			1 -11		
13							1 1		1 to~1.5 bas		
								1 1 1	سر ا		
14						ľ.			1	ا بر ا	
	5-8		19.16		100	1			Bentonik Chips to~1.5'bgs BOW = 19.47'	0	
15					100	*		1 1 1	150W = 19.47		
17						r i		1 1 1	1 4		1
J			-						1 From TOR		
16									From TOR  TOR to Top  of nad box:  0,8		
	5-9		16-18		100					0	
17	7	7	9						ITOR to TOP		
											1
18						ll l			lot nad box.		
-	( 10		10 371		100		1 3.0	1   1			
_	5-10	1 0	18-20		100		E 62	1 I I	1 86.0		
19						в	7/8/		1 2,30	0	
						10 3011	/		1		
20						End@20'bas					
_	Split Spo	on San	nnle	NOTES:	1) Water level	data referenced to ground surface elevatio	n			_	1
				NOTES.				WOD	abt of rada		
U - 1	Rock Co	ie sain	hie		2) BGS = Delo	w ground surface, NV = no value, WOH = v	veignt of nam	iller, work = wei	gni oi rous.		
								-			
Sene	477011					ndary between soil types; transitions may b					

## Monitoring Well Installation Northtown Plaza Amherst, New York

Boring No. MW- ? Flie No. 31.0056687.30 Checked By: JR

ITRACTO		Jim A			BORING LOCATION S GROUND SURFACE ELEN GZA GEOENVIRONMENT.		DAT	UM_	-
RT DATE			DATE: 4/22/2	015		AL REPRESE		11/10/1-	_
		WATER LEV		NOTES	TYPE OF DRILL RIG CASING SIZE AND DIAME	TED	Geopa	DE DUNU DI	-
DATE	TIME	WATER	CASING	NOTES	OVERBURDEN SAMPLING		Direct Push		-
4/20/13	11241	13.81	1 FYC		ROCK DRILLING METHOD		Not Applica	ole	<b>→</b> ):
	1				NOOK BRIZEING METHOL		Trock (pp.iida		=4
	-	SAMF	PLE		SAMPLE DESCRIPTION		VELL	WELL	0
					1-440	INST	ALLATION	INSTALLATION DESCRIPTION	V
BLOWS	NO∞	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	little	ravel DI	AGRAM	DESCRIPTION	Tppmi
(/6")	+	0-3	/KQD	60	Acabal + (3")	10000000	200000000		0
5-/	+	0 . 0		20	No CANA	/	1888		
					Brown +/C SAND			, -	1
					ist. SIIT, MOIST(FA	4) [注	388	<b>├</b>	0
5-2		J.4		60	Brown Si HUZLAY				
				- No. 25 (1)	Ja Sand Ja Lianot	2333	2000	R	,
,	u .				MOIS + INATINE			1 & Microwell	10
¢. 7	-	11 1		100	Isleeve wet com			restalled	
J	-	4-6		100	Jeers net com			1" & Microwell installed • screened - w/pre-Sand pack	10
	+				MOIZE MERCIACIO.			· screened -	1,0
4						1 1		w/ pre-Sand	0
3-4		6-8		100				Pack	
		7 S V						- ~5-20 bg	
								2 90 129	۶.
		0.10		-70				T. Sand Park	0
5-5	-	8-10		70				(OON Sand)	
	$\vdash$			-	1			+ I H'bac	
		12. 7.1		9-1-		- 1 1		70 1 123	1
5-6		10-12		70	1	1.1		Modium	2.0
3),							-	Fastasite.	1,0
						- 1 1	1 1	Chins to	1
<. 9	_	111		- ^ ^			1 t	CMFS	0
5.7	+-	W-14		80	1			~ 0.65 bas	1
	+-				† · I				1
								BOW =	10
5-8		14-16		RD	]			19,32	1
		-						TOR	
									1
	-	11 10		10	-			TOR-Topot road box =	,
5-9	+	16-18		10	1			1017 1010	10
				-	1			road box =	1 2
					1			DZMI	
5-10		18-20		ID	]			0,31	12
					]				1
					End @30'Ags				
0 171 0				45544	ENDICOU FOS				
Split S			NOTES:	1) Water leve	I data referenced to ground surface elevation ow ground surface, NV = no value, WOH = w	II. voight of ham:	ner WOP = wo	ight of rods	
- Rock (	Jore Sa	iripie		2) BGS = Del	ow ground sunace, NV = no Value, WOH = V	vergint or name	noi, WOR - WE	ignic or road.	
									0

# APPENDIX B WELL CONSTRUCTION LOGS



Project Number: 3	31.0056687.30		Field Geologist: T. Bown	Ground El.: 97.43
Client: Northtown A	Associates		Project Manager: J. Richert	El. Datum: Ground Shot
Location (City, Sta	ate): Amherst, NY		Installation Date: ปี /ปี ก็ปรูการบาง	Latitude:
Contractor: Trec E	nvironmental Inc.		Water Level: NA	Longitude:
Driller: J. Ager				
Soil/Rock Conditions	Borehole Backfill	Location Notes: MW-4 is associated with SP - 52, reference point measured from the top of the wester meter.		
ASPHALT 0.3	0 Concrete		Type of Lock (Key N	umber): Not Applicable
FILL	1		Protective Casing (fr at ground surface Length (in.): 12	<b>t.)</b> 0
1.8	Bentonite		Diameter (in.): 8  depth of top of well ground surface (ft.):	
	3.5		2 Soopioso.	
			Well Material Types	Sch. 40 PVC  Top Depth (ft.) Bottom Depth (ft.)
GLACIAL TILL			Concrete Portland grout Bentonite Grout Sand Pack	0.0 1.0 NA NA 1.0 3.5 3.5 19.5
	PrePacked 00N Sand			
			Top of well screen (i Sand Pack Type: Pre Well Screen Materia Diameter (in.): 1.0 Bottom of well scree	epacked 00N I: Sch. 40 PVC 0.010 Slot
20	19.5 19.5		Bottom of silt trap (f	t.):
20	19.3	ii	Bottom of borehole	<b>(ft.):</b> 20.0
	4	+ 15 +	= 19	Well No.
	Riser Length (ft.)	+ <u>15</u> + + Screen Length (ft.) +	= 19 Silt Trap Length (ft.) = Total Length (ft.)	MW - 4



				<u></u>			
Project Number: 3	31.0056687.30			Field Geologist: T. Bow	vn	Ground El.	: 97.2
Client: Northtown Associates				Project Manager: J. Richert		El. Datum:	Ground Shot
Location (City, Sta				Installation Date: 03/10	0/2015	Latitude:	
Contractor: Trec E				Water Level: NA		Longitude:	
Driller: J. Ager						Stick-Up	✓ Flushmount
Soil/Rock	Borehole Backfill	Location Notes: MW-5 is ass					
Conditions		reference point measured from meter.	m the top of the west	ernmost bollard on the so	uthwest corner of the plant	aza building	protecting a gas
ASPHALT	0	motor.					
0.3	Concrete				Type of Lock (Key N	umber): No	Applicable
0.3	4						
FILL 4	1 1 Bentonite 2.5				a Geoprobe.  Well riser material:	riser below 0.5 Monitoring w	ell was installed using
GLACIAL TILL					Well Material Types Concrete Portland grout Bentonite Grout Sand Pack	Top Depth ( 0.0 NA 1.0 2.5	ft.) Bottom Depth (ft.) 1.0 NA 2.5 18.0
<u>20</u>	PrePacked 00N Sand				Top of well screen (sand Pack Type: Prowell Screen Materia Diameter (in.): 1.0 Bottom of well screen Bottom of silt trap (factor of borehole)	epacked 00N I: Sch. 40 P en (ft.): 18.0	VC 0.010 Slot
	2.5	+ 15			= 17.5		Well No.
	Z.5 Riser Length (ft )	+ Screen Lengt	. + h (ft ) +	Silt Tran Length (ft )		-	MW - 5



Project Number:	31.0056687.30			Field Geologist: T. Boy	vn	Ground El.	: 96.57
Client: Northtown Associates				Project Manager: J. Richert		El. Datum:	Ground Shot
Location (City, Sta				Installation Date: 03/10		Latitude:	
Contractor: Trec E				Water Level: NA		Longitude:	
Driller: J. Ager							
Soil/Rock Conditions	Borehole Backfill	Location Notes: MW-5 is ass reference point measured from meter.					
ASPHALT 0.3	0 Concrete	meter.			Type of Lock (Key N	<b>lumber):</b> Not	Applicable
0.3 FILL 1	1				Protective Casing (		
1 GLACIAL TILL	1 Bentonite  2.5 2.5				a Geoprobe.  Well riser material:  Diameter (in.): 1.0	: 0.5 Monitoring w Sch. 40 PVC	ell was installed using  ft.) Bottom Depth (ft.)  1.0  NA  3.5  19.5
20 20	PrePacked 00N Sand 19.5				Top of well screen (Sand Pack Type: Pr Well Screen Materia Diameter (in.): 1.0 Bottom of well scre Bottom of silt trap (Bottom of borehole	epacked 00Nal: Sch. 40 Pen (ft.): 19.5	VC 0.010 Slot
	<u>.</u>	<u> </u>				I	Well No.
	Riser Length (ft )	+ 15	. + h (ft ) +	Silt Tran Length (ft )	= 19 = Total Length (ft )	-	MW - 6



			T		
Project Number:	31.0056687.30		Field Geologist: T. Bown	Ground E	l.: 97.05
Client: Northtown	Associates		Project Manager: J. Richert	El. Datum	: Ground Shot
Location (City, St	ate): Amherst, NY		Installation Jastick-US/1 12548hmou	Latitude:	
Contractor: Trec B	Environmental Inc.		Water Level: NA	Longitude	:
Driller: J. Ager					
Soil/Rock Conditions	Borehole Backfill	Location Notes: MW-7 is associated with SP - 55 reference point measured from the top of the west meter.			
ASPHALT	0	initial.			
0.3	Concrete		Type of Lock (Key I	Number): No	ot Applicable
0.3	1				
FILL	Bentonite		Protective Casing ( at ground surface Length (in.): 12 Diameter (in.): 8  depth of top of well ground surface (ft.) Installation Notes: a Geoprobe.	l riser below : 0.5	vell was installed using
4	6		Well riser material: Diameter (in.): 1.0 Well Material Types		C (ft.) Bottom Depth (ft.)
GLACIAL TILL			Concrete Portland grout Bentonite Grout Sand Pack	0.0 NA 1.0 6.0	1.0 NA 6.0 18.0
	PrePacked 00N Sand		Top of well screen Sand Pack Type: P		N
			Well Screen Materia	al: Sch. 40 l	PVC 0.010 Slot
			Diameter (in.): 1.0		
			Bottom of well scre	en (ft.): 18.	0
22	18		Bottom of silt trap	(ft.):	
22	18		Bottom of borehole	<b>(ft )</b> - 22 0	
			Bottoiii oi borenoie	. (11. <i>)</i> . ∠∠.∪	
	7.5	+ 10 +	=17.5		Well No.
	Riser Length (ft.)	+ Screen Length (ft.) +	Silt Trap Length (ft.) = Total Length (ft.)		MW - 7



Project Number:	31.0056687.30		Field Geologist	t: T. Bohlen	Ground El	.:
Client: Northtown	Associates		Project Manage	er: J. Richert	El. Datum:	
Location (City, Sta	ate): Amherst, NY		Installation Dat	te: 04/22/2015	Latitude:	
Contractor: Trec E	Environmental Inc.		Water Level: N	IA	Longitude	:
Driller: J. Ager					Stick-Up	✓ Flushmount
Soil/Rock Conditions	Borehole Backfill	Location Notes: See boring log for s	ubsurface details.			
ASPHALT 0.3	0 Concrete			Type of Lock (Key	Number): No	ot Applicable
FILL 1.5	1 1 Bentonite			Protective Casing ( at ground surface Length (in.): 12 Diameter (in.): 8 depth of top of wel ground surface (ft.	ll riser below	,
	4					vell was installed using
GLACIAL TILL				Concrete Portland grout Bentonite Grout	<b>s Top Depth (</b> 0.0  NA 1.5	(ft.) Bottom Depth (ft.) 1.5 NA 4.0
	PrePacked 00N Sand			Sand Pack	4.0	20.0
20 20	20 20			Top of well screen Sand Pack Type: P Well Screen Materi Diameter (in.): 1.0 Bottom of well scre Bottom of silt trap	Prepacked 00N ial: Sch. 40 Feen (ft.): 20.4	PVC 0.010 Slot
	4.72	+ 15	+	= 19.72		Well No.
	Riser Length (ft.)	<u> </u>	<del></del>	h (ft.) = Total Length (ft.)	_	MW - 8



				mitt 5	
Project Number:	31.0056687.30		Field Geologist: T. Bohlen Ground El.:		
Client: Northtown A				El. Datum:	
Location (City, State): Amherst, NY			Installation Date: 04/22/2015	Latitude:	
	invironmental inc.		Water Level: NA	Longitude:  ☐ Stick-Up	
Driller: J. Ager Soil/Rock	Borehole Backfill	Location Notes: See boring log for subsurface de	tails	Flusiiiiouiit	
Conditions	Berenele Backini	EGGATOR MOTOR	rano.		
0.3	0 Concrete		Type of Lock (Key N	umber): Not Applicable	
0.3					
FILL	0.65 0.65		Productive Ocean (fr	1.0	
FILL	0.03		Protective Casing (for at ground surface	a. <b>)</b> 0	
1			Length (in.): 12		
1			Diameter (in.): 8		
	Bentonite		depth of top of well		
			ground surface (ft.): Installation Notes: N	0.32 Monitoring well was installed using	
	4		a Geoprobe.	g	
	4				
		!   !			
			Well riser material:	Sch. 40 PVC	
			Diameter (in.): 1.0		
		i   i			
			Well Material Types	Top Depth (ft.) Bottom Depth (ft.)	
GLACIAL TILL		! ! !	Concrete	0.0 0.7	
			Portland grout	NA NA	
			Bentonite Grout	0.7 4.0	
			Sand Pack	4.0 20.0	
		i   i			
		i   i			
	PrePacked				
	00N Sand	i   i			
		!!!			
		! ! !			
			Top of well screen (		
		<u> </u>	Sand Pack Type: Pre		
				: Sch. 40 PVC 0.010 Slot	
			Diameter (in.): 1.0 Bottom of well scree	en (ft.): 20 0	
			Bottom of well scree		
20	20		Bottom of silt trap (f	t.):	
20	20	i i			
			Bottom of borehole	(ft.): 20.0	
	4.68	+ 15 +	= 19.68	Well No.	
	Riser Length (ft.)	+ Screen Length (ft.) +	Silt Trap Length (ft.) = Total Length (ft.)	MW - 9	

# APPENDIX C FIELD FORMS

SV-1 Fitness

## 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 R	track T. Boble	Date/Time Prepared 3/10/15	
Preparer's Affiliation <u>Co</u>	666	Phone No. 716 - 685-2300	
Purpose of Investigation	Real Estate	e Transaction	
1. OCCUPANT:			
Interviewed: Y/N			
Last Name:	First Nar	me:	
Address:			
County:	_		
Home Phone:	Office Phone	:	
Number of Occupants/person	ons at this location	Age of Occupants	
2. OWNER OR LANDLO	<b>PRD:</b> (Check if same as o	occupant)	
Interviewed: Y/N			
Last Name:	First Nam	ne:	
Address:		#2	
County:	_		
Home Phone:	Office Phone	e:	
3. BUILDING CHARAC	<b>FERISTICS</b>		
Type of Building: (Circle a	appropriate response)		
Residential Industrial	School Com Church Othe	nmercial/Multi-use	

If the property is residential,	type? (Circle app	propriate respon	se)						
Ranch	2-Family	3-Fam	ilv						
Raised Ranch	Split Level	Coloni							
Cape Cod	Contemporary		Home						
Duplex	Apartment Hou		ouses/Condos						
Modular	Log Home								
If multiple units, how many?									
If the property is commercial,	type?								
Business Type(s)			77						
Does it include residences (	(i.e., multi-use)?	Y/N	If yes, how many	?					
Other characteristics:									
Number of floors		Building age							
Is the building insulated? Y	/ N	How air tight?	Tight / Average /	Not Tight					
4. AIRFLOW									
Use air current tubes or trace	r smoke to evalu	iate airflow pa	tterns and qualitat	tively describe:					
		-	•						
Airflow between floors									
Airflow near source									
Anthow hear 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		
c. Basement floor:	concrete	dirt	stone	other		
d. Basement floor:	uncovered	covered	covered with_	tile		
e. Concrete floor:	unsealed	sealed	sealed with			
f. Foundation walls:	poured	block	stone	other		
g. Foundation walls:	unsealed	sealed	sealed with			
h. The basement is:	wet	damp	dry	moldy		
i. The basement is:	finished	unfinished	partially finish	ed		
j. Sump present?	Y/N					
k. Water in sump? Y/1	N / not applicable					
Basement/Lowest level depth below	y grade:	_(feet)				
Identify potential soil vapor entry	points and approx	ximate size (e.g	g., cracks, utility	ports, drains)		
slightly cracked, floor drains, while lies						
6. HEATING, VENTING and AIT				y)		
Hot-air circulation	Heat pump		vater baseboard			
Space Heaters Electric baseboard	Stream radiation Wood stove		ant floor oor wood boiler	Other		
	Wood Stove	Outu	oor wood boner			
The primary type of fuel used is:						
Natural Gas Electric Wood	Fuel Oil Propane Coal	Kero: Solar				
Domestic hot water tank fueled by:	Nat.	Gas				
Boiler/furnace located in: Base	ement Outdo	ors Main	Floor	Other		
Air conditioning: Cent	ral Air Windo	ow units Open	Windows	None		

Are there air distribution ducts present?



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.

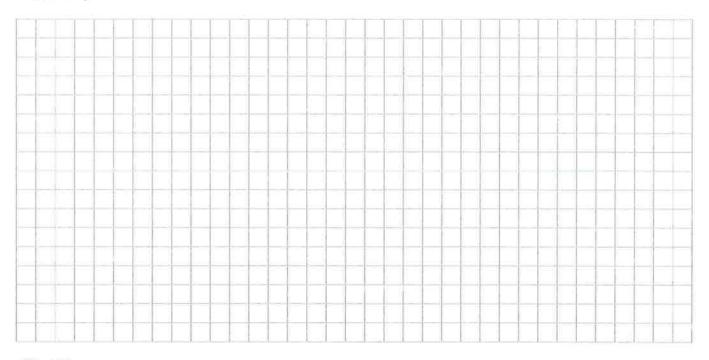
Air ducts bocated a	box dop ceiling tile
7. OCCUPANCY  Is basement/lowest level occupied? Full-time Occas  Level General Use of Each Floor (e.g., familyroon)	tionally Seldom Almost Never
Basement  1st Floor  2nd Floor  3rd Floor	L space fitness center
4 <sup>th</sup> Floor  8. FACTORS THAT MAY INFLUENCE INDOOR AIR Q	UALITY
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 / When?
e. Is a kerosene or unvented gas space heater present?	Y/N Where?
f. Is there a workshop or hobby/craft area?	Y / Where & Type?
g. Is there smoking in the building?	Y / N How frequently?
h. Have cleaning products been used recently?	Y 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 When & Type?
m. Is there a kitchen exhaust fan?	Y (N) If yes, where vented?
n. Is there a bathroom exhaust fan?	N If yes, where vented?
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?  If yes, please describe:	YN
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y 🔊 auto body shop, painting, fuel oil delivery,
If yes, what types of solvents are used?	
If yes, are their clothes washed at work?	Y/N
Do any of the building occupants regularly use or work at a response)	dry-cleaning service? (Circle appropriate
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/structur Is the system active or passive? Active/Passive	e? YNDate of Installation:
9. WATER AND SEWAGE	
Water Supply: Public Water Drilled Well Driver	n Well Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	Field Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residentia	al emergency)
a. Provide reasons why relocation is recommended:	
b. Residents choose to: remain in home relocate to fri	ends/family relocate to hotel/motel
c. Responsibility for costs associated with reimbursemen	nt explained? Y/N
d. Relocation package provided and explained to reside	nts? Y/N

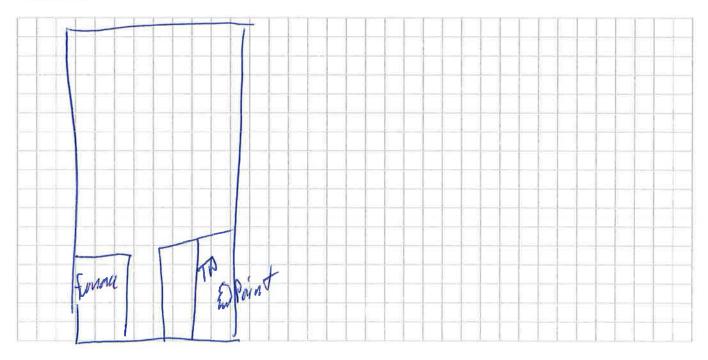
## 11. FLOOR PLANS

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:**



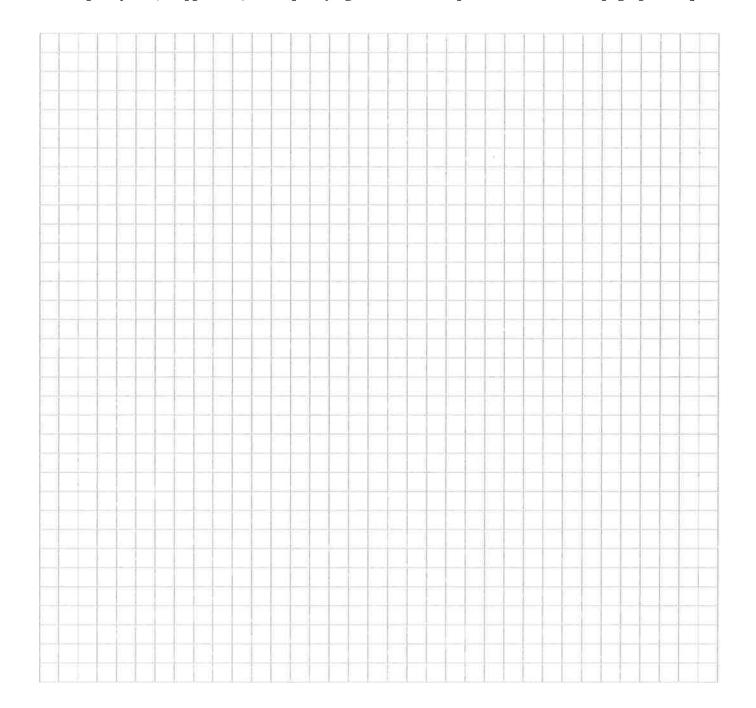
## First Floor:



## 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



## 13. PRODUCT INVENTORY FORM

Make & Model of field instrument used:	Mini	Rue	3000	11.7eV
The control of the co	11/1/1/	1000	2000	111

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
9414	paint	gal	U		0	
L'	409 Cleaner	Gal	V		0	
	Disinfectant	991	U		0	
24x 4	No 9 Cleaner Disinfectant Purell Sanificer	9a   802	$\mathcal{U}$	Alcohol	0	
			11			
					18	
				9		
				j		

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

SV-2 Jackson Hewitt

## 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 R. Str	ack /T. Bohle	Date/Time Prepared	d 3/10/15
Preparer's Affiliation	1	Phone No. 7/6 - 6	,
Purpose of Investigation_	Real Estate	Transaction	
1. OCCUPANT:			
Interviewed: Y/N			
Last Name:	First	Name:	<u> </u>
Address:			
County:	<b>⇒</b> :		
Home Phone:	Office Pho	one:	
Number of Occupants/pers	sons at this location	Age of Occupants	
2. OWNER OR LANDL	ORD: (Check if same a	ns occupant)	
Interviewed: Y/N			
Last Name:	First N	Jame:	<u></u>
Address:			
County:			
Home Phone:	Office Ph	one:	
3. BUILDING CHARAC	TERISTICS		
Type of Building: (Circle	appropriate response)		
Residential Industrial		Commercial/Multi-use Other:	

If the property is residential, t	type? (Circle app	propriate	respons	se)	
Ranch Raised Ranch	2-Family Split Level		3-Fami Colonia		
Cape Cod	Contemporary			e Home	
Duplex	Apartment Hou		Townh	nouses/Condos	
Modular	Log Home		Other:		
If multiple units, how many?					
If the property is commercial,	type?				
Business Type(s)					
Does it include residences (	i.e., multi-use)?	Y/N		If yes, how many?	
Other characteristics:					
Number of floors		Buildin	g age		
Is the building insulated? Y	/ N	How ai	r tight?	Tight / Average / Not Tight	
4. AIRFLOW					
Use air current tubes or trace	r smoke to eval	uate airi	flow pat	tterns and qualitatively describe:	
			W <b>J</b>		
Airflow between floors					
					_
Airflow near source					
.——————————————————————————————————————					_
3				*	
Outdoor air infiltration					
					_
Infiltration into air ducts					
7					

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

a. Above grade construc	ction: woo	d frame con	crete	stone	brick
b. Basement type:	full	cra	wlspace	slab	other
c. Basement floor:	conc	erete dire	t	stone	other
d. Basement floor:	unco	overed cov	vered	covered with	
e. Concrete floor:	unse	aled sea	led	sealed with	
f. Foundation walls:	pour	ed blo	ck	stone	other
g. Foundation walls:	unse	aled sea	led	sealed with	——————————————————————————————————————
h. The basement is:	wet	dan	np	dry	moldy
i. The basement is:	finis	hed unf	finished	partially finish	ed
j. Sump present?	Y/N	1			
k. Water in sump?	Y/N/not aj	pplicable			
Basement/Lowest level dept	h below grade:	(feet	t)		
Identify potential soil vapor	entry points a	nd approximat	te size (e.g	., cracks, utility	ports, drains)
slight cracking, floor drains, whilities					
6. HEATING, VENTING  Type of heating system(s) us					7)
Hot air circulation		pump		ater baseboard	
Space Heaters		m radiation		nt floor	0.1
Electric baseboard	Woo	od stove	Outdo	oor wood boiler	Other
The primary type of fuel us	ed is:				
Natural Gas	Fuel	Oil	Keros	ene	
Electric	Prop		Solar		
Wood	Coal				
Domestic hot water tank fu	eled by: <u>Na</u>	t gas		_	
Boiler/furnace located in:	Basement	Outdoors	Main	Floor	Other
Air conditioning:	Central Air	Window un	nits Open	Windows	None

Are the	re air	distribution	ducts	present?
ALC UIC	i c aii	misti ination	uucts	DI COCHT:

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.

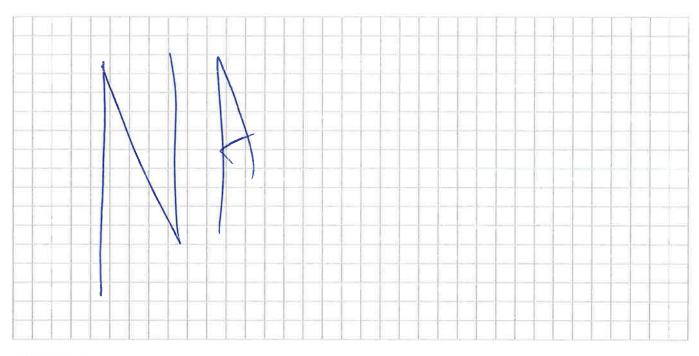
Air	du t loca	a de da	bove	do	p ce	ling
	PANCY t/lowest level occupi	ed? Full-time	Occasio	onally	Seldom	Almost Never
<u>Level</u>	General Use of	Each Floor (e.g.,	familyroom	, bedro	om, laundry, w	vorkshop, storage)
Basement  1 <sup>st</sup> Floor  2 <sup>nd</sup> Floor	tax re	ture prep	OWLV			- -
3 <sup>rd</sup> Floor						=)
4 <sup>th</sup> Floor	·					
8. FACTO	RS THAT MAY INI	FLUENCE INDO	OR AIR QU	ALITY	7	
a. Is ther	e an attached garage	e?			YN	
b. Does t	he garage have a sep	arate heating uni	t?		Y/N/A	
	troleum-powered main the garage (e.g., la				Y/N/N/ Please specify	
d. Has th	e building ever had	a fire?			Y/W When	?
e. Is a ke	rosene or unvented g	gas space heater p	resent?		Y/W Where	e?
f. Is there	a workshop or hob	by/craft area?		Y / 💖	Where & Type	e?
g. Is ther	e smoking in the bui	lding?		Y/Q	How frequent	y?
h. Have o	leaning products be	en used recently?		Y/0	When & Type	?
i. Have c	osmetic products bec	en used recently?		YID	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/18	Where & When?
I. Have air fresheners been used recently?	Y/0	When & Type?
m. Is there a kitchen exhaust fan?	Y/8	If yes, where vented?
n. Is there a bathroom exhaust fan?	Y/X)	If yes, where vented?
o. Is there a clothes dryer?	Y/0	If yes, is it vented outside? Y / N
p. Has there been a pesticide application?	Y /6	When & Type?
Are there odors in the building?  If yes, please describe:	Y (6)	
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y/Ø auto body	shop, painting, fuel oil delivery,
If yes, what types of solvents are used?		A.
If yes, are their clothes washed at work?	Y/N	
Do any of the building occupants regularly use or work at a response)	ı dry-clea	ning service? (Circle appropriate
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/structur Is the system active or passive? Active/Passive	e? Y/N	Date of Installation:
9. WATER AND SEWAGE		
Water Supply: Public Water Drilled Well Drive	n Well	Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	i Field	Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residenti	al emerge	ency)
a. Provide reasons why relocation is recommended:		
b. Residents choose to: remain in home relocate to fri	ends/fami	ly relocate to hotel/motel
c. Responsibility for costs associated with reimburseme	nt explain	ned? Y/N
d. Relocation package provided and explained to reside	nts?	Y/N

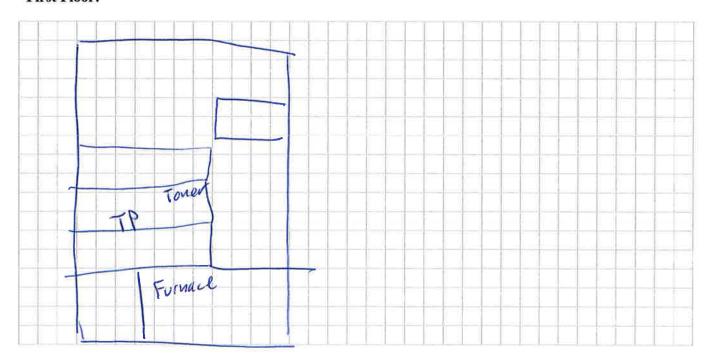
## 11. FLOOR PLANS

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:**



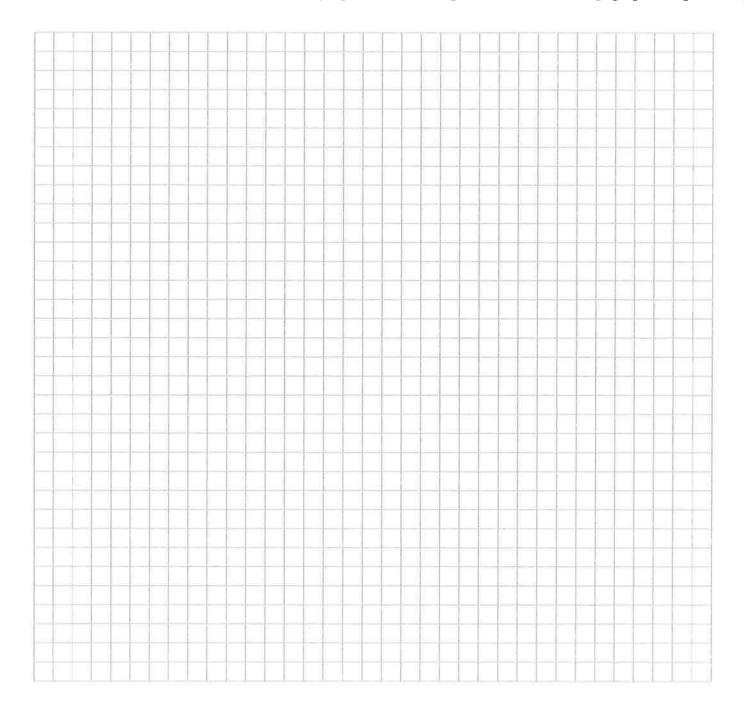
## First Floor:



## 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13.	PRO	DUCT	INVENT	ORV	FORM
13.		$\mathbf{D}\mathbf{U}\mathbf{U}\mathbf{I}$	TIA A TATA B		I. CALVIA

Make & Model of field instrument used:	M	N.	R	10	3000	/	1.7 eV
			_		000		

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

Toner Cartridges 18 U	Location		t Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y/N
		Toner	Cartidaec	18	U		0	
			J. J					
	-							
			-	<u> </u>				

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

OSR-3

SV-3

Shoppers Choice Bsmt.

## 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		Date/Time Prepared	
Preparer's Affiliation		Phone No	
Purpose of Investigation_			
1. OCCUPANT:			
Interviewed: Y/N			
Last Name:		First Name:	_
Address:			<b>-</b> 9
County:			
Home Phone:	Offic	ce Phone:	
Number of Occupants/per	rsons at this location	n Age of Occupants	
2. OWNER OR LANDI	ORD: (Check if s	ame as occupant)	
Interviewed: Y/N			
Last Name:	F	irst Name:	_
Address:			_
County:			
Home Phone:	Offi	ce Phone:	
3. BUILDING CHARAG	CTERISTICS		
Type of Building: (Circle	e appropriate respon	nse)	
Residential Industrial	School Church	Commercial/Multi-use Other:	

# If the property is residential, type? (Circle appropriate response) 2-Family 3-Family Ranch 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) Does it include residences (i.e., multi-use)? Y/N If yes, how many?\_\_\_\_\_ Other characteristics: Number of floors Building age Is the building insulated? Y / N How air tight? Tight / Average / Not Tight 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 AN	O CONSTRUCTION	<b>CHARACTERISTICS</b>	(Circle all that a	apply)
----	-------------	----------------	------------------------	--------------------	--------

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other
c. Basement floor:	concrete	dirt	stone	other
d. Basement floor: partia	uncovered	covered	covered with	carpet
e. Concrete floor:	unsealed	sealed	sealed with _	
f. Foundation walls:	poured	błock	stone	other
g. Foundation walls:	unsealed	sealed	sealed with	Daint
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finish	ned
j. Sump present?	<b>⊘</b> / N			
k. Water in sump?	N / not applicab	le		
Basement/Lowest level depth belo	w grade: <u>//</u>	(feet)		
Identify potential soil vapor entry	points and app	roximate size (e	e.g., cracks, utility	ports, drains)
slight cracking entry parts	, multipl	le floor	doains,	vtility
6. HEATING, VENTING and A				
Type of heating system(s) used in	this building: (c	ircle all that ap	ply – note primar	y)
Hot air circulation Space Heaters Electric baseboard	Heat pump Stream radi Wood stove	ation Rac	t water baseboard diant floor door wood boiler	Other
The primary type of fuel used is:				
Natural Gas Electric Wood	Fuel Oil Propane Coal	Ker Sol	rosene ar	
Domestic hot water tank fueled b	y: Nati	gas	21	
Boiler/furnace located in:	sement Out	doors Ma	in Floor	Other
Air conditioning: Ce	ntral Air Win	ndow units Ope	en Windows	None

Are	there	air	distribution	ducts	present?
	CHOI C	***	CIDEL IN CITAL	OH CO	br operior

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.

ductwork located abo	ve drop céaling
7. OCCUPANCY	Œ
Is basement/lowest level occupied? Full-time Occa	sionally Seldom Almost Never
Level General Use of Each Floor (e.g., familyroo	om, bedroom, laundry, workshop, storage)
Basement Storage by Riversic 1st Floor Shoppers Choice Sta	le Meus Shop
2 <sup>nd</sup> Floor	
3 <sup>rd</sup> Floor	
4 <sup>th</sup> Floor	
8. FACTORS THAT MAY INFLUENCE INDOOR AIR (	QUALITY
a. Is there an attached garage?	YN
b. Does the garage have a separate heating unit?	Y/N/NA
c. Are petroleum-powered machines or vehicles	Y/N(NA)
stored in the garage (e.g., lawnmower, atv, car)	Please specify
d. Has the building ever had a fire?	Y When?
e. Is a kerosene or unvented gas space heater present?	Y / Where?
f. Is there a workshop or hobby/craft area?	Y Where & Type?
g. Is there smoking in the building?	YN How frequently?
h. Have cleaning products been used recently?	Y N When & Type?
i. Have cosmetic products been used recently?	Y/N When & Type?

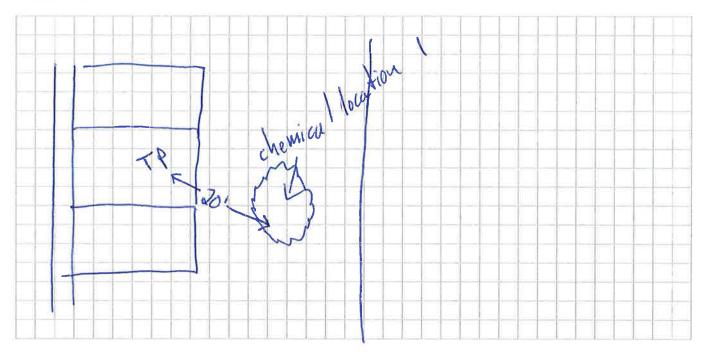
, 2 × c

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 / If yes, where vented?
n. Is there a bathroom exhaust fan?	Y / N If yes, where vented?
o. Is there a clothes dryer?	Y N If yes, is it vented outside? Y/N
p. Has there been a pesticide application?	Y / When & Type?
Are there odors in the building?  If yes, please describe:	QN SUMP COVER
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y N uto body shop, painting, fuel oil delivery,
If yes, what types of solvents are used?	
If yes, are their clothes washed at work?	Y/N
Do any of the building occupants regularly use or work at a response)	dry-cleaning service? (Circle appropriate
Yes, use dry-cleaning regularly (weekly) Yes, use dry-cleaning infrequently (monthly or less) Yes, work at a dry-cleaning service	Unknown
Is there a radon mitigation system for the building/structure Is the system active or passive? Active/Passive	e? Y N Date of Installation:
9. WATER AND SEWAGE	
Water Supply: Public Water Drilled Well Driver	Well Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	Field Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residentian and a provide reasons why relocation is recommended:	<b>.</b>
b. Residents choose to: remain in home relocate to frie	ends/family relocate to hotel/motel
c. Responsibility for costs associated with reimbursemen	at explained? Y/N
d. Relocation package provided and explained to residen	ats? Y/N

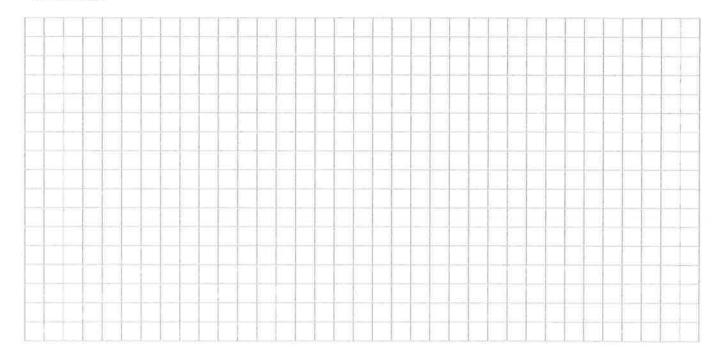
## 11. FLOOR PLANS

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:



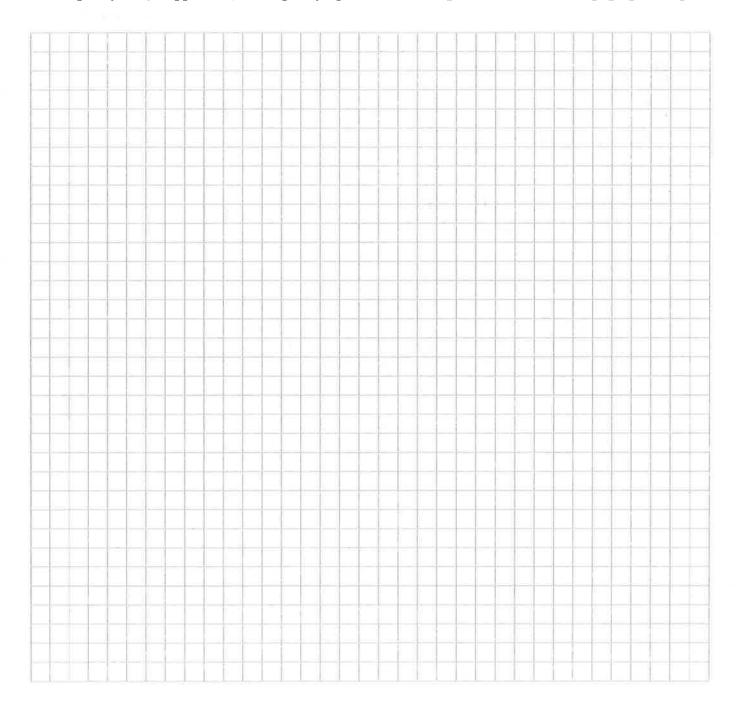
## First Floor:



#### 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



#### 13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Mini Rae 3000 11.7 eV

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
94 J	HD-40 0,1	2+	U			
	Polycrylic Finish	g t	U	propynol, ethylun glycol		
	Penetrating Lube	16 02	$\mathcal{V}$			
	Thinner	g t	U	mineral spirits		
	Turpen tine	gt	U	,		
94,3	Paint	802	U			
gty 3	Bleach	gt	U			
gty 1	Wood Polish	16	U	isobutane		
	Carpet Clauner	gal	V	silicon emulsion		
	Disinfectant Deoderat	1602	V	2-Pheny / phenol, Ethnus		
442	Glass Cleaner	1902	U	ethylakohol, methylak.		
	Tou-D-Wach	1602	U	Methy / 11 tave, ethors, hoxa	ul	
	Autiseptic Care Stainless Steel Clean	1402	<i>U</i>	diwethy 1-ethy I benzew, ether	01	
	Stainless Steel Cleaner	1602	$\mathcal{U}$	isobutable		
	=					

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

SV-4 Riverside Mens

## 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 R. Strack / Bohley Date/Time Prepared 3/10/15
Preparer's Affiliation <u>cou sultant</u> Phone No. 7/6-685-3300
Purpose of Investigation Real Estate Transaction
1. OCCUPANT:
Interviewed: Y/N
Last Name: First Name:
Address:
County:
Home Phone: Office Phone:
Number of Occupants/persons at this location Age of Occupants
2. OWNER OR LANDLORD: (Check if same as occupant)
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
---

Ranch Raised Ranch	2-Family Split Level	3-Family Colonial
Cape Cod Duplex	Contemporary Apartment House	Mobile Home Townhouses/Condos
Modular	Log Home	Other:
If multiple units, how man	ıy?	
If the property is commer	cial, type?	
Business Type(s)		<del></del>
Does it include residence	ces (i.e., multi-use)? Y	N If yes, how many?
Other characteristics:		
Number of floors	Bui	lding age
Is the building insulated	1? Y / N Ho	w air tight? Tight / Average / Not Tight
4. AIRFLOW		
Use air current tubes or tr	acer smoke to evaluate	airflow patterns and qualitatively describe:
Airflow between floors		
*		
Airflow near source		
×		
		. *
Outdoor air infiltration		
Outdoor an infinitation		
Infiltration into air ducts		
<u></u>		

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

a. Above grade construction	on: wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other
c. Basement floor:	concrete	dirt	stone	other
d. Basement floor:	uncovered	covered	covered with_	
e. Concrete floor:	unsealed	sealed	sealed with	
f. Foundation walls:	poured	block	stone	other
g. Foundation walls:	unsealed	sealed	sealed with	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finish	ed
j. Sump present?	Y/N			
k. Water in sump?	Y / N / not applicable			
Basement/Lowest level depth l	below grade:	_(feet)		
Identify potential soil vapor en	ntry points and appro	ximate size (e.g	g., cracks, utility	ports, drains)
slight cracking	g, flow du	iw,	utilities	
6. HEATING, VENTING an  Type of heating system(s) used  Hot air circulation  Space Heaters  Electric baseboard		cle all that app  Hot vion Radia		(v) Other
The primary type of fuel used	is:			
Natural Gas Electric Wood	Fuel Oil Propane Coal	Kero Solar		
Domestic hot water tank fuele	d by: Nat O	<del>-</del> 45		
Boiler/furnace located in:	Basement Outdo	oors Main	Floor	Other
Air conditioning:	Central Air Wind	ow units Oper	n Windows	None

Are there air distribution ducts present?



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.

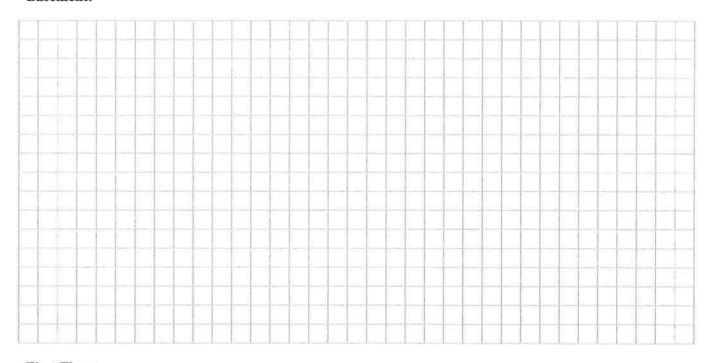
Air	ducts are above	C	trop c	ceiling
7. OCCUP				
		Occasionally	Seldom	Almost Never
Level	General Use of Each Floor (e.g., family	room, bedro	om, laundry, w	orkshop, storage)
Basement  1st Floor	Mens Clothing	Shop		
2 <sup>nd</sup> Floor		7		_
3 <sup>rd</sup> Floor				
4 <sup>th</sup> Floor				-
8. FACTOR	S THAT MAY INFLUENCE INDOOR AI	R QUALITY	<i>I</i>	
a. Is there	an attached garage?		YN	
b. Does the	e garage have a separate heating unit?		Y/N/NA	
_	roleum-powered machines or vehicles n the garage (e.g., lawnmower, atv, car)		Y/N/NA Please specify	_
d. Has the	building ever had a fire?		Y/W When	?
e. Is a kero	osene or unvented gas space heater present		Y/ Where	?
f. Is there	a workshop or hobby/craft area?	Y/6	Where & Type	?
g. Is there	smoking in the building?	Y / 🕅	How frequentl	y?
h. Have cl	eaning products been used recently?	Y/0	When & Type	?
i. Have cos	smetic products been used recently?	Y/👂	When & Type	?

j. Has painting/staining been done in the last 6 months?	Y/W Where & When?
k. Is there new carpet, drapes or other textiles?	Y/W Where & When?
l. Have air fresheners been used recently?	Y / When & Type?
m. Is there a kitchen exhaust fan?	Y/N If yes, where vented?Y/N If yes, where vented?
n. Is there a bathroom exhaust fan?	Y/N If yes, where vented?
o. Is there a clothes dryer?	Y(N) If yes, is it vented outside? Y/N
p. Has there been a pesticide application?	Y When & Type?
Are there odors in the building?  If yes, please describe:	YN
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y (N) auto body shop, painting, fuel oil delivery,
If yes, what types of solvents are used?	
If yes, are their clothes washed at work?	Y/N
Do any of the building occupants regularly use or work at a response)	dry-cleaning service? (Circle appropriate
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/structur Is the system active or passive? Active/Passive	e? Y N Date of Installation:
9. WATER AND SEWAGE	
Water Supply: Public Water Drilled Well Drive	n Well Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	Field Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residention)  a. Provide reasons why relocation is recommended:	
b. Residents choose to: remain in home relocate to fri	
c. Responsibility for costs associated with reimbursemen	•
d. Relocation package provided and explained to reside	-
F. C.	•

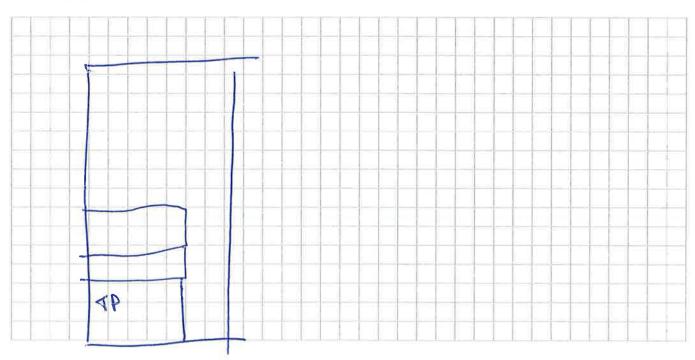
## 11. FLOOR PLANS

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:**



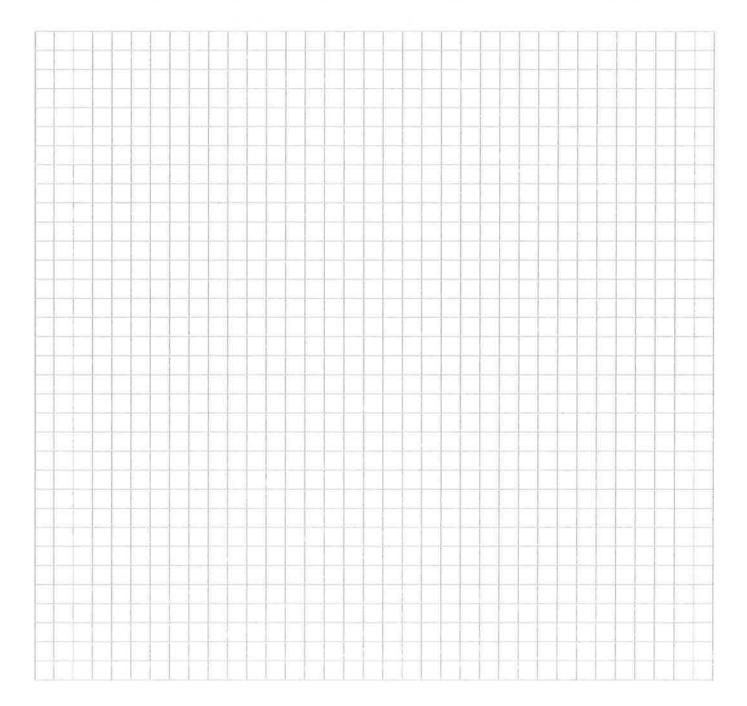
# First Floor:



## 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



1	13	P	D		П	I	T	$\mathbf{C}\mathbf{I}$	Г	T	N	J	17	$T_i$	N	П	$\Gamma$	ገ	D	7	Z	F		II.	T	М	r
				•	, .	<i>,</i> .	J				1		•	14	1 4				T.	. 1			•	, ,	<b>A</b> I	v.	

Make & Model of field instrument used:	
List specific products found in the residence that have the potential to affect indo	or air quality.

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

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

SV-5 My Burger Bar

## 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	track /	Doblen Date/Time Prepared 3/10/15
-	~ i/	Phone No. 716-685-2300
Purpose of Investigation	Real Est	tate Transaction
1. OCCUPANT:		
Interviewed: Y/N		
Last Name:		First Name:
Address:		
County:	_	
Home Phone:	Offic	ce Phone:
Number of Occupants/person	ons at this location	on Age of Occupants
2. OWNER OR LANDLO	<b>PRD:</b> (Check if s	same as occupant)
Interviewed: Y/N		
Last Name:	F	First Name:
Address:		
County:	_	
Home Phone:	Offi	ice Phone:
3. BUILDING CHARAC	<b>FERISTICS</b>	
Type of Building: (Circle	appropriate respon	onse)
Residential Industrial	School Church	Commercial/Multi-use Other:

If the property is residential	, type? (Circle ap)	propriate respon	ise)	
Ranch	2-Family	3-Fam	ilv	
	Raised Ranch Split Level		ial	
Cape Cod	Contemporary		e Home	
Duplex	Apartment Hou		nouses/Condos	
Modular	Log Home	Other:		
If multiple units, how many?	?			
If the property is commercia	ıl, type?			
Business Type(s)			<del></del> ,	
Does it include residences	s (i.e., multi-use)?	Y/N	If yes, how many?	
Other characteristics:				
Number of floors		Building age_		
Is the building insulated?	Y/N	How air tight?	Tight / Average / Not Tight	
4. AIRFLOW			•	
Use air aurwent tubes or tree	on smaka ta aval	nata airdan na	tterns and qualitatively describe:	
Use all current tubes of trac	er smoke to evan	uate an now pa	tterns and quantativery describe:	
Airflow between floors				
Airflow near source				
·				
3				
Outdoor air infiltration				
	_		£	
Infiltration into air ducts				
			21	

		3			
5.	BASEMENT AND CONSTRUCT	TION CHARAC	CTERISTICS (	Circle all that app	ply)
	a. Above grade construction:	wood frame	concrete	stone	brick
	b. Basement type:	full	crawlspace (	slab	other
	c. Basement floor:	concrete	dirt	stone	other
	d. Basement floor:	uncovered	covered	covered with _	<del></del>
	e. Concrete floor:	unsealed	sealed	sealed with	
	f. Foundation walls:	poured	block	stone	other
	g. Foundation walls:	unsealed	sealed	sealed with	
	h. The basement is:	wet	damp	dry	moldy
	i. The basement is:	finished	unfinished	partially finished	ed
	j. Sump present?	Y/N			
	k. Water in sump? $Y/N/$	not applicable			
Ba	sement/Lowest level depth below g	rade:(	(feet)		
Ide	entify potential soil vapor entry poi	nts and approxi	imate size (e.g.,	cracks, utility p	orts, drains)
	slight cracking,	drains i	a Floor	, utili	lies
	HEATING, VENTING and AIR				
Ty	pe of heating system(s) used in this	building: (circl	e all that apply	– note primary)	)
(	Hot air circulation Space Heaters Electric baseboard	Heat pump Stream radiation Wood stove	n Radiant	ter baseboard t floor r wood boiler	Other
Th	e primary type of fuel used is:				
	Catural Gas Electric Wood	Fuel Oil Propane Coal	Keroser Solar	ne	

Domestic hot water tank fueled by: \_

Basement

Central Air

Outdoors

Main Floor

Window units Open Windows

Other\_

None

Boiler/furnace located in:

Air conditioning:

Are there air distribution ducts present?



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.

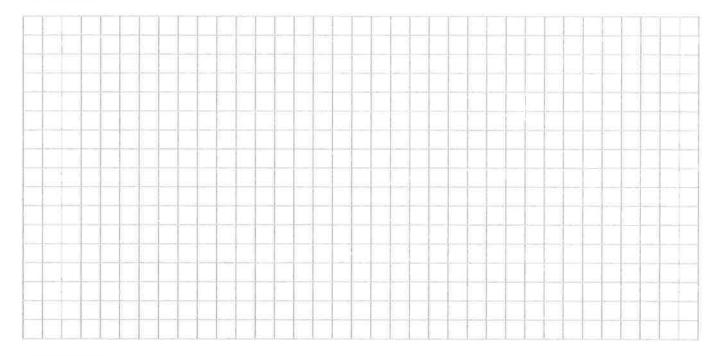
Air	ducts are above	Jop	ceile	iug
7. OCCUI		ecasionally	Seldom	Almost Never
Level	General Use of Each Floor (e.g., familyr	oom, bedro	om, laundry, v	vorkshop, storage)
Basement  1 <sup>st</sup> Floor  2 <sup>nd</sup> Floor  3 <sup>rd</sup> Floor  4 <sup>th</sup> Floor	Vacant restaurant			- - -
8. FACTO	RS THAT MAY INFLUENCE INDOOR AIR	R QUALITY	(	
a. Is there	e an attached garage?		YN	
b. Does tl	he garage have a separate heating unit?		Y/N/NA	
	troleum-powered machines or vehicles in the garage (e.g., lawnmower, atv, car)	~		
d. Has the	e building ever had a fire?			?
e. Is a ker	rosene or unvented gas space heater present?			e?
f. Is there	e a workshop or hobby/craft area?			e?
g. Is there	e smoking in the building?			ly?
h. Have c	leaning products been used recently?	Y / 🕅	When & Type	2?
i. Have co	osmetic products been used recently?	Y/Q	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/ Where & When?
l. Have air fresheners been used recently?	Y/ When & Type?
m. Is there a kitchen exhaust fan?	Y/ Ø If yes, where vented?
n. Is there a bathroom exhaust fan?	Y / If yes, where vented?
o. Is there a clothes dryer?	Y A If yes, is it vented outside? Y / N
p. Has there been a pesticide application?	Y When & Type?
Are there odors in the building?  If yes, please describe:  Grease file	On Fryers
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y/N outo body shop, painting, fuel oil delivery,
If yes, what types of solvents are used?	10
If yes, are their clothes washed at work?	YN
Do any of the building occupants regularly use or work at a response)	dry-cleaning service? (Circle appropriate
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 Is the system active or passive?  Active/Passive	e? Y Date of Installation:
9. WATER AND SEWAGE	
Water Supply: Public Water Drilled Well Driver	n Well Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	Field Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residentia	al emergency)
a. Provide reasons why relocation is recommended:	
b. Residents choose to: remain in home relocate to frie	ends/family relocate to hotel/motel
c. Responsibility for costs associated with reimbursemen	nt explained? Y/N
d. Relocation package provided and explained to resider	nts? Y/N

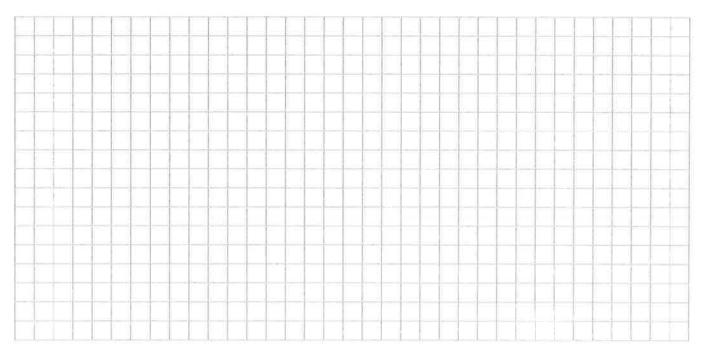
## 11. FLOOR PLANS

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:**



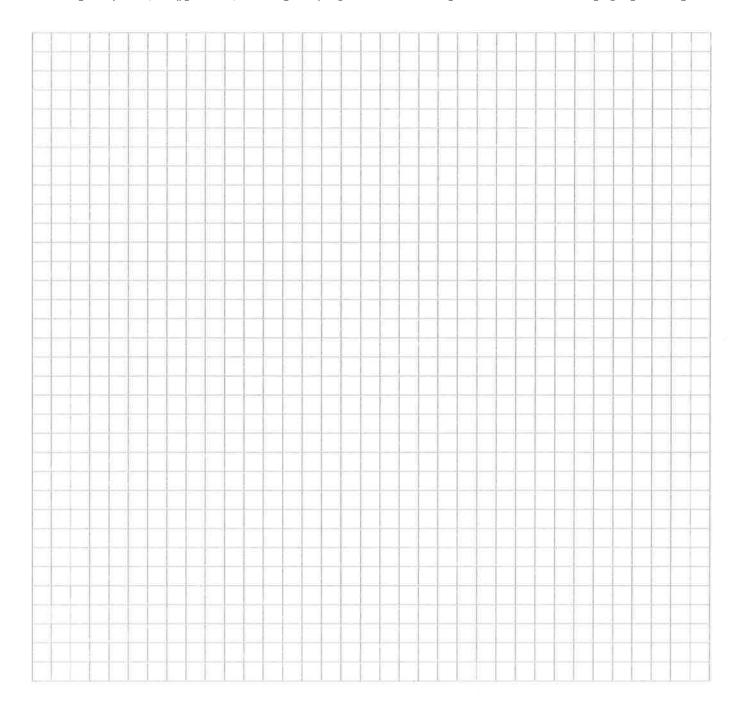
# First Floor:



#### 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



#### 13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Mini Rae 3000 11.7eV

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
	Paint	gal	U			
643	Paint Bio Rinse	gal 5gal	()			
VI	Bleach	29t				
	NICO VI	1				
		1				
		-				
					18	

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

SV-Ce Treats Unleashed

# 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 R. Strack / Bohley Date/Time Prepared 3/10/15
Preparer's Affiliation Consultant Phone No. 716-685-3300
Purpose of Investigation Real Estate Transaction
1. OCCUPANT:
Interviewed: Y/N
Last Name: First Name:
Address:
County:
Home Phone: Office Phone:
Number of Occupants/persons at this location Age of Occupants
2. OWNER OR LANDLORD: (Check if same as occupant)
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 residentia	al, type? (Circle appropr	iate response)
Ranch Raised Ranch Cape Cod Duplex Modular	2-Family Split Level Contemporary Apartment House Log Home	3-Family Colonial Mobile Home Townhouses/Condos Other:
If multiple units, how many	y?	
If the property is commerc	ial, type?	
Business Type(s)		= <del></del>
Does it include residence	es (i.e., multi-use)? Y/	N If yes, how many?
Other characteristics:		
Number of floors	Buil	ding age
Is the building insulated:	Y/N Hov	air tight? Tight / Average / Not Tight
4. AIRFLOW  Use air current tubes or tra  Airflow between floors	ncer smoke to evaluate	airflow patterns and qualitatively describe:
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	
c. Basement floor:	concrete	dirt	stone	other	
d. Basement floor:	uncovered	covered	covered with		
e. Concrete floor:	unsealed	sealed	sealed with _		
f. Foundation walls:	poured	block	stone	other	
g. Foundation walls:	unsealed	sealed	sealed with		
h. The basement is:	wet	damp	dry	moldy	
i. The basement is:	finished	unfinished	partially finish	ned	
j. Sump present?	Y/N				
k. Water in sump?	/ N / not applicabl	le			
Basement/Lowest level depth be	low grade:	(feet)			
Identify potential soil vapor entr	y points and appi	roximate size (e.g.	., cracks, utility	ports, drains)	
slight cracking	, drain	ports,	, util	ities	
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					
The primary type of fuel used is:					
Natural Gas Electric Wood	Fuel Oil Propane Coal	Keros Solar	ene		
Domestic hot water tank fueled by: Nata gas					
Boiler/furnace located in: Ba	asement Outo	doors Main	Floor	Other	
Air conditioning:	entral Air Win	dow units Open	Windows	None	

Are	there	air	distribution	ducts	present?
AIC	THE C	an	misti ination	uucts	рт сэсиг.



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.

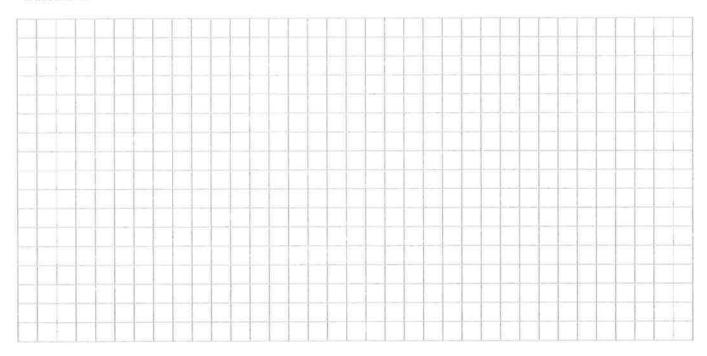
Air	duc ts	beated	a bove	dio	p ceiling
7. OCCUPA	NCY owest level occup	pied? Full-time	Occasionally	Seldom	Almost Never
Level		Each Floor (e.g., fam	ilyroom, bedro	om, laundry,	workshop, storage)
Basement  1 <sup>st</sup> Floor  2 <sup>nd</sup> Floor  3 <sup>rd</sup> Floor  4 <sup>th</sup> Floor	Pet Fo	od Star	٠.		
8. FACTORS	THAT MAY I	NFLUENCE INDOOR	AIR QUALITY		
a. Is there a	n attached gara	ge?		YIN	
b. Does the	garage have a so	eparate heating unit?		Y/N/NA	
c. Are petro stored in	oleum-powered i the garage (e.g.,	nachines or vehicles lawnmower, atv, car)		Y/N/NA Please specif	ý
d. Has the b	ouilding ever had	l a fire?		Y/W When	n?
e. Is a keros	sene or unvented	l gas space heater prese	ent?	Y/W When	re?
f. Is there a	workshop or ho	bby/craft area?	Y/8	Where & Typ	pe?
g. Is there s	moking in the b	uilding?			tly?
h. Have clea	aning products h	een used recently?	Y/6		e?
i. Have cosr	netic products b	een used recently?	YI	When & Typ	e?

j. Has painting/staining been done in the last 6 months?	Y/ Where & When?
k. Is there new carpet, drapes or other textiles?	Y/W Where & When?
l. Have air fresheners been used recently?	Y / 🚯 When & Type?
m. Is there a kitchen exhaust fan?	Y/ S If yes, where vented?
n. Is there a bathroom exhaust fan?	Y/M If yes, where vented?
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?  If yes, please describe:	YN
Do any of the building occupants use solvents at work? (e.g., chemical manufacturing or laboratory, auto mechanic or a boiler mechanic, pesticide application, cosmetologist	Y (N) auto body shop, painting, fuel oil delivery,
If yes, what types of solvents are used?	
If yes, are their clothes washed at work?	Y
Do any of the building occupants regularly use or work at a response)	dry-cleaning service? (Circle appropriate
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 Is the system active or passive? Active/Passive	e? Y Date of Installation:
9. WATER AND SEWAGE	
Water Supply: Public Water Drilled Well Driver	n Well Dug Well Other:
Sewage Disposal: Public Sewer Septic Tank Leach	Field Dry Well Other:
10. RELOCATION INFORMATION (for oil spill residentia	al emergency)
a. Provide reasons why relocation is recommended:	
b. Residents choose to: remain in home relocate to frie	ends/family relocate to hotel/motel
c. Responsibility for costs associated with reimbursemen	at explained? Y/N
d. Relocation package provided and explained to resider	nts? Y/N

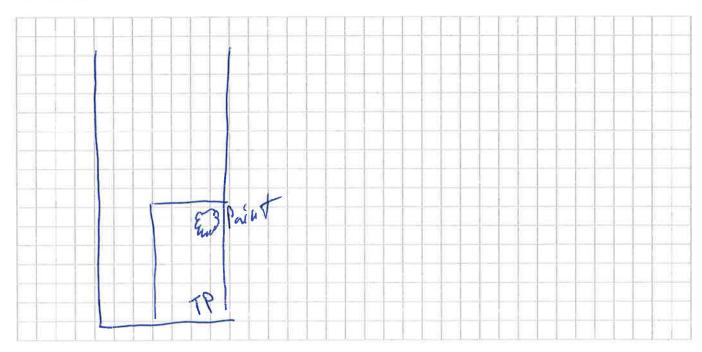
## 11. FLOOR PLANS

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:**



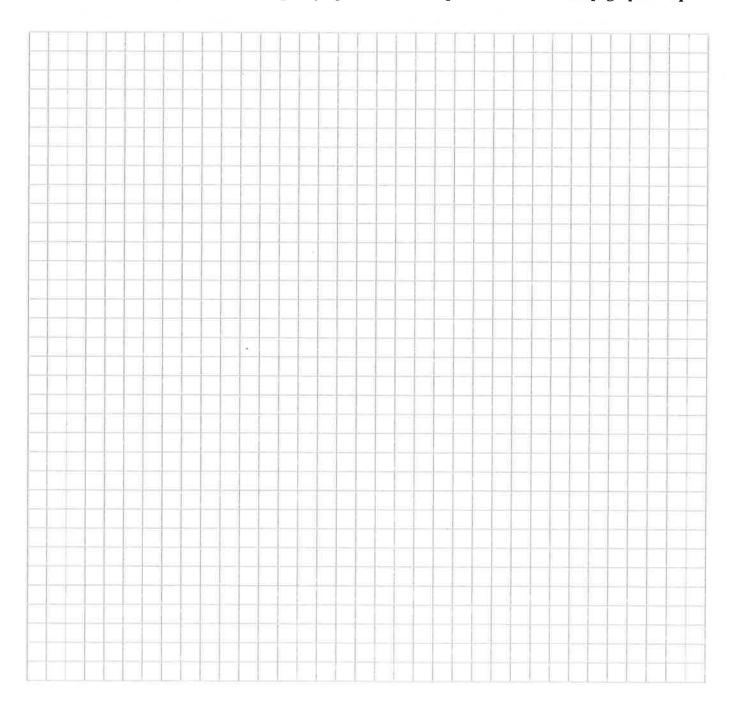
## First Floor:



## 12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13.	PRODUCT	' INVENTORY FORM

Make & Model of field instrument used:

Mini Rue 3000	117eV
---------------	-------

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
gty3	Pain +	gal	V			
gtyd	Paint	gal 5yal	U			
g ty le	Pain +	g+	V			
FI	Pain + Thinner	gt	V	Mineral Spirits		
		L				
				30		
						28
-					II	216
					I	
				_		
	1,			•		
			11.			
				W 12		

<sup>\*</sup> Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

<sup>\*\*</sup> 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.

Substab sample = 20/15 VB- on- Site @ North town Plaza@ 815@ Tofal Autonotive space to conduct - regulator: 301 • conister: 95 • Start@ 9:26 rapor in Auston sampling coordinated sampling w/ ferent SE portion of Building 1545 N of SE orner in office, · Start vacuum: > -30"Ha Indoor Ar sample = JVM - MiniPAE 3000, W/ n. FeV TA-IA- 043015 - regulator = 1168 sulb-background in · carister = 1186 office = 0.5 pm · starta 929 · Start vacuum: -29"Ha OVM- hole = 10.5 ppm, peak converte ~ 6" thick Outdoor Air sample = Subslab He leat test-TA-0A-042015 regulator = 1157 o tay · canister = 366 - Start @ 941 · > 85% He comen fra tron > 3 min in enclosure " Start vacdum = - 27 "Hg . < 1,3% He in subsurface

emical Inventory Screen. TA-55-042015 end vacuum @ -5"Ha end time @ 16:34 Africe! 1@ 32 08. Exterior Car Wash JE808, Brake Life Lubrian? · TA- IA- 042015 0.0ppm. - end vacuum @ -6.5"Hg - end time @ 16:36 ervice Dest Arca; (0.0 ppm bkgmd) · TA- OA- 042015 - end vacuum@ 5"Hg torage from North of office; 4 car batteries (0.1ppmbg/m end fime @ 16,30 (0. 1ppmbymd) - YB off sixe for UPS/6ZA 40 Igal paint 40-32 oz. paint 150,3 ppm & lids While @ 16:50. Multiple cases of motor oils, transmission Shids, sealonts, cleavers, etc. - see pics



## WELL DEVELOPMENT REPORT

MW-4

Project Number:	Geologist: Patrick Finnerty	Ground El.:
Client: Northtown Associates LLC	Project Manager: Jim Richert	El. Datum:
Location (City, State): Amherst, New York	Development Date: 03/13/15	Stick-up
Contractor: Trak Environmental	Water Level: /7.5/	Flushmount
Drillor:	Note: All water level managements shall be from the top of the well rices	

comments: Very low-weljusing baler to purge well before moving to the Depth to Water before Development (feet): りついちん low-flow sampling.

Depth to Bottom of Well prior to Development (feet): (9,28 '

Comments:

Volume of Water to be removed (gallons):

Method of Well Development: perstalt ( pump & bailer comments: well went by rapidly with pump, used bailer to create grap water

Type of Water Quality Meter (Make & Model):

YST, FAOI 784

TIME	VOLUME (gal)	pH	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTUs
1023	0		(with	=	-	_	-
1025	< 0.1 < 0.1 Dry	7.02	9.7	30,58	114.3	6.07	
1027	<0.1				Biologyes		
Well	Da				- W	ell da	
	911						
_							

Total Volume of Water Removed from Well (gallons):

Comments on Well Development: @ 1015 well projed with bailer for appaximentally 5 minutes to.

Attempt measuring water recharge
-Will allow well to cecharge for a grab sample next week



WELL No.

MW-S

Project Number:	Geologist: Patrick Finnerty	Ground El.:	
Client: Northtown Associates LLC	Project Manager: Jim Richert	El. Datum:	
Location (City, State): Amherst, New York	Development Date: 03/13/15	Stick-up	
Contractor: Trell	Water Level: / 3,65	Flushmount	
Driller:	Note: All water level measurements shall be fro	m the top of the well riser	

Depth to Water before Development (feet): 13.65

Comments:

Depth to Bottom of Well prior to Development (feet): 🍞 🌿

Comments:

Volume of Water to be removed (gallons):

Method of Well Development: Barle r comments: Old not have prop in working condition

Type of Water Quality Meter (Make & Model):

TIME	VOLUME (gal)	pН	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTUs
/i/2	<0.1	7.22	10,6	38.00	-93,6	3,59	-
illb	Depth Tox (f)	5:14.5					
1117		14.44					
1117 1122		14.4					
well or						1106	11 dn
WULL OV	1						11 010
						_=	
_							

Total Volume of Water Removed from Well (gallons): <0.1 Comments on Well Development: Could not use peristaltic sump, used barler to read one set of parameters
- well project dry



MW-6

Project Number:	Geologist: Patrick Finnerty	Ground El.:
Client: Northtown Associates LLC	Project Manager: Jim Richert	El. Datum:
Location (City, State): Amherst, New York	Development Date: 03/13/15	Stick-up
Contractor: Tres	Water Level: 5,0%	Flushmount
Driller:	Note: All water level measurements shall be fro	om the top of the well riser

Depth to Water before Development (feet): 5つく

Comments:

Depth to Bottom of Well prior to Development (feet):  $\int \mathcal{S}_6 \mathcal{G}_6$ 

Comments:

Volume of Water to be removed (gallons):

Method of Well Development: Barler comments: could not use peristultic b/c prmp was Not in useable condition

Type of Water Quality Meter (Make & Model): 灯 🗚

TIME	VOLUME (gal)	pΗ	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTUs)
1304	501	7.19	4.4	177.3 PLF 51.75	159.3	6,99	
1334	Oa l	_	8.4	- 3/13/6		-	~
1274	Water Dear	16: 0.2	1,				
1149	1. 1. 2	1 121	9				
1334	Worter Dep	11 1711	-				
well	CO. 1 Co. 1 Da 1 Water Depo					- we	1 dry
Men	019					- DWC	1 00/
	1						
				•			
			113				
			11/1				
			1 / .				
		16	1 / 2 . 7				
			1413 . 7				
		18					
			P P				6.
					-		1
						4	
						100	

Total Volume of Water Removed from Well (gallons): 1.5 gn/ Comments on Well Development: Well purged dry with banker, did not have presistaltic pring its conduct low flow sampling, used banker to read one set of parameters



(I			
Project Number:	Geologist: Patrick Finnerty	Ground El.:	
Client: Northtown Associates LLC	Project Manager: Jim Richert	El. Datum:	
Location (City, State): Amherst, New York	Development Date: 03/13/15	Stick-up	
Contractor: Trel	Water Level: 13,0L(1	Flushmount	
Driller:	Note: All water level measurements shall be fro	m the top of the well riser.	

Depth to Water before Development (feet): 13,04°

Depth to Bottom of Well prior to Development (feet): 17.63

Comments:

Volume of Water to be removed (gallons):

Method of Well Development: Bailer comments: Will attempt to purge well dry, no peristaltic pump in working condition

Type of Water Quality Meter (Make & Model):

TIME	VOLUME (gal)	pН	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTL
1157	<0.1	7.07	145	32.70	-30.1	6.70	
us7 well da						wel	long
					)		
					-		

Total Volume of Water Removed fr	rom Well (ga	allons): <(	Bulan		
Total Volume of Water Removed fr Comments on Well Development:	Well	purged	dry	vin	harler
		•	- 1	×1	



WELL No.

MW-8

Project Number: 31.0056687.30 Task 9999	Geologist: D. Wulf	Ground El.: NA
Client: Northtown Associates, LLC	Project Manager: T. Bohlen	El. Datum: NA
Location (City, State): Amherst, New York	Development Date: 4/24/2015	Stick-up No
Contractor: Not present	Water Level:	Flushmount Yes
Driller: Not present	Note: All water level measurements shall be from the top	of the well riser.

Depth to Water before Development (feet): 12.20

Comments: Marked top of riser to designate monitoring point

Depth to Bottom of Well prior to Development (feet): 19.50

Comments: Well contains approximately 0.32 gallons

Volume of Water to be removed (gallons): Will remove water until well runs dry

Method of Well Development: Geotech Peristaltic Pump with LDPE 0.17x1/4" Tubing, and micro bailer

Comments:

Type of Water Quality Meter (Make & Model): YSI ProDSS 4M with Flow-Through Cell

TIME	VOLUME (gal)	pН	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTUs
1225	0.25	6.46	11.8	13.733	-98.8	6.58	34.1

Total Volume of Water Removed from Well (gallons): Well pumped dry at approximately 1.25 gallons

Comments on Well Development: Trace amounts of sediment present during purging of well



WELL No.

MW-9

Project Number: 31.0056687.30 Task 9999	Geologist: D. Wulf	Ground El.: NA
Client: Northtown Associates, LLC	Project Manager: T. Bohlen	El. Datum: NA
Location (City, State): Amherst, New York	Development Date: 4/24/2015	Stick-up No
Contractor: Not present	Water Level:	Flushmount Yes
Driller: Not present	Note: All water level measurements shall be from the top	of the well riser.

Depth to Water before Development (feet): 7.41

Comments: Marked top of riser to designate monitoring point

Depth to Bottom of Well prior to Development (feet): 19.31
Comments: Well contains approximately 0.52 gallons

Volume of Water to be removed (gallons): Remove water until well runs dry

Method of Well Development: Geotech Peristaltic Pump with LDPE 0.17x1/4" Tubing, and micro bailer

Comments:

Type of Water Quality Meter (Make & Model): YSI ProDSS 4M with Flow-Through Cell

TIME	VOLUME (gal)	pН	Temperature (°C)	Conductivity (mS/cm)	Redox Potential (mV)	D.O. (mg/l)	Turbidity (NTUs)
1230	0.25	6.55	10.0	14.53	25.7	6.14	627.6

Total Volume of Water Removed from Well (gallons): Well pumped dry at approximately 1.75 gallons

Comments on Well Development: Some amounts of sediment present during purging of well



## GROUNDWATER SAMPLING REPORT

Chain of Custody Number: Not Available

Project Number - 3 0.005-667 3	Project Numb	or: 21 00500	97 20			Data (mrs	Idon.): 04/27/2045		Wall ID: MW 0			
									Well ID: MW-9	(*-> 4 *		
If measurements are to be taken from the reference point/notch on the top of the well riser.						,			-		nch	
Surface seal good?   NA   Yes   No		•					. ,					
Value   Diameter (ID) = Gallons per foot of depth: 1 = 0.044	II measurem	ents are to b	e taken fr	om the reference po	nt/notch on th	e top of the	well riser.		Cor	dition of N	Monitoring W	<u>′ell</u>
Purging and Sampling Equipment (Check Applicable)   Peristatic Pump   Bladder Pump   Other   Discovered (Manufacturer & Model)   YSI ProDSS 4M with Flow-Through Cell   Are bolts missing?   NA   Yes   Notes:   NA   Yes   Notes:   Phi: + / - 0.1 unit   ORP: + / - 10 mV	olume of war	ter in well = l	inear fee	t of water in well * G	allons per foo	t of depth			Is surface seal good?	NA	Yes	No
Purging and Sampling   Equipment (Check Applicable)   Peristaltic Pump   Bladder Pump   Other   Sea   Sea	/ell Diamete	r (ID) = Gallo	ns per fo	ot of depth: 1 = 0.044	1 2 = 0.163 4	1 = 0.653 6			Is well cover intact?	NA	Yes	No
Peristatic Pump   Bladder Pump   Other   Are bolts missing?   NA   Yes   No   Yes   Yes	Purging and	l Sampling	Bailer:		Waterra Tub	ing			Is well cap present?	NA	Yes	No
Whale Pump   Other   Is well locked?   NA   Yes   No	Equip	ment	Peristal	tic Pump	Bladder Pum	р			Are bolts missing?	NA	Yes	No
Notes:   10:40   Volume Purged (gal): 1.25   Temperature: ± 3°C   DO: +/- 10% mg/l	( 1	,,	Whale P	ump	Other				Is well locked?	NA	Yes	No
PH: +/- 0.1 unit   ORP: +/- 10 mV	itial Water L	evel (ft):	5.82	Start Time:	9:15	Flow Rate	(ml/min):		Ground	dwater Sta	bilization Cr	iteria:
Ampling Depth (it) 15   PH: +7 - 0.1 unit   ORP: +7 - 10 mV	nal Water L	evel (ft):	13.83	Stop Time:	10:40	Volume Pu	irged (gal): 1.25		Temperature: ± 3°C		DO: +/-10	0% mg/l
TIME         ELAPSED TIME         DRAWDOWN (ft)         TEMPERATURE         ph         CONDUCTIVITY         DO         ORP         TURBIDITY           0930         15         0.28         9.2         6.46         12.001         3.31         195.8         4           0946         31         2.07         9.0         6.42         9.481         4.07         170.6         34.80           1010         55         4.61         9.2         6.45         9.401         3.38         169.7         79.90           1021         66         6.63         9.9         6.50         8.820         3.32         166.7         82.40	ampling Dep	oth (ft)	15	Notes:		•			pH: + / - 0.1 unit		ORP: + / -	10 mV
0930         15         0.28         9.2         6.46         12.001         3.31         195.8         4           0946         31         2.07         9.0         6.42         9.481         4.07         170.6         34.80           1010         55         4.61         9.2         6.45         9.401         3.38         169.7         79.90           1021         66         6.63         9.9         6.50         8.820         3.32         166.7         82.40	as Pressure	(psi)	NA						SC: + / - 3% mS/cm		Turdity: ± 1	0% nTu
0946     31     2.07     9.0     6.42     9.481     4.07     170.6     34.80       1010     55     4.61     9.2     6.45     9.401     3.38     169.7     79.90       1021     66     6.63     9.9     6.50     8.820     3.32     166.7     82.40	TIME	ELAPSE	) TIME	DRAWDOWN (ft)	TEMPER	RATURE	рН	CONDUCTIVITY	DO	0	RP	TURBIDITY
1010     55     4.61     9.2     6.45     9.401     3.38     169.7     79.90       1021     66     6.63     9.9     6.50     8.820     3.32     166.7     82.40	0930	15		0.28	9.:	2	6.46	12.001	3.31	19	95.8	4
1021 66 6.63 9.9 6.50 8.820 3.32 166.7 82.40	0946	31		2.07	9.	0	6.42	9.481	4.07	17	70.6	34.80
	1010	55		4.61	9.	2	6.45	9.401	3.38	16	9.7	79.90
1031 76 8.01 10.4 6.56 9.136 3.38 169.1 85.6	1021	66		6.63	9.	9	6.50	8.820	3.32	16	66.7	82.40
	1031	76		8.01	10	.4	6.56	9.136	3.38	16	9.1	85.6
Sampling Notes:	Sampling Note	<u>es</u> :										
	Sample ID: M	W-9					Date & Time: 04/27/20	015 10:40	Sampled By (Printed): [	Daniel Wu	lf	
Sample ID: MW-9 Date & Time: 04/27/2015 10:40 Sampled By (Printed): Daniel Wulf	Sample Analy	rsis: VOCs 82	260, Chlo	rinated Compounds	Only				Signature:			

Analytical Laboratory (Name and Location): Paradigm Environmental Services, Inc. Rochester, New York



Sample Analysis: VOCs 8260, Chlorinated Compounds Only

Analytical Laboratory (Name and Location): Paradigm Environmental Services, Inc. Rochester, New York

# **GROUNDWATER SAMPLING REPORT**

Signature:

Chain of Custody Number: Not Available

GLY	Proactive by	Design	ronmental, Inc		G	ROUND	WAIER	SAMPLI	ING	KE	PURI	
Project Numb	er: 31.00566	37.30			Date (mm	ddyy): 04/27/2015		Well ID: MW-8				
lient: Northto	own Associat	es, LLC			Name (Pri	nted): D. Wulf		Monitoring Well Diameter (in): 1 Inch				
ocation (City	, State): Amh	erst, Nev	w York		Static Wat	er Level (ft): 14.69		Total Well Depth (ft): 1	9.50			
II measurem	ents are to b	e taken fr	om the reference po	int/notch on th	e top of the	well riser.		Cor	ndition of I	Monitoring W	/ell	
olume of war	ter in well = L	inear fee	et of water in well * G	allons per foo	t of depth			Is surface seal good?	NA	Yes	No	
/ell Diamete	r (ID) = Gallo	ns per fo	ot of depth: 1 = 0.04	4 2 = 0.163 4	l = 0.653 6	= 1.469 8 = 2.611 10 =	= 4.080	Is well cover intact?	NA	Yes	N	
		Bailer:		Waterra Tub	ing		(Manufacturer & Model) ith Flow-Through Cell	Is well cap present?	NA	Yes	No	
Purging and Equip	ment	Peristal	tic Pump	Bladder Pum	ıp			Are bolts missing?	NA	Yes	N	
(Check Ap	plicable)	Whale F	Pump	Other				Is well locked?	NA	Yes	No	
itial Water L	evel (ft):	14.69	Start Time:	1120	Flow Rate	(ml/min):		Ground	dwater Sta	abilization C	riteria:	
nal Water L	evel (ft):	Dry	Stop Time:	1200	Volume Pu	urged (gal): 5/8		Temperature: ± 3°C		DO: +/- 10	0% mg/l	
ampling Dep	oth (ft)	18.50	Notes:					pH: + / - 0.1 unit		ORP: + / - 10 mV		
as Pressure	(psi)	NA	-					SC: + / - 3% mS/cm		Turdity: ± 1	)% nTu	
TIME	ELAPSED	TIME	DRAWDOWN (ft)	TEMPER	RATURE	рН	CONDUCTIVITY	DO	O	)RP	TURBIDITY	
1127	7		1.21	11	.1	6.69	10.76	3.69	-1	61.8	2.1	
1143	23		4.04	11	.2	6.78	10.83	2.65	-2	00.2	3.30	
1152	32		4.11	11	.5	6.77	6.77 10.37 3.90			77.8	3.50	
1200	40		4.09	11	.6	6.74	10.34	4.85 -141.3		41.3	3.20	
Sampling Note						Date & Time: 04/27/20	015 12:05	Sampled By (Printed): I	Daniel Wu	ılf		
ווו אולייי. ואו	,, 0					Date & Time. 04/21/20	J.O 12.00	campica by (i-filled). I	zarner vvu			

# APPENDIX D LABORATORY ANALYTICAL REPORTS



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-52 (8-9)

 Lab Sample ID:
 150827-01
 Date Sampled:
 3/10/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,1,1-Trichloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,1,2,2-Tetrachloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,1,2-Trichloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,1-Dichloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,1-Dichloroethene	< 3.05	ug/Kg		3/17/2015 15:27
1,2-Dichlorobenzene	< 3.05	ug/Kg		3/17/2015 15:27
1,2-Dichloroethane	< 3.05	ug/Kg		3/17/2015 15:27
1,2-Dichloropropane	< 3.05	ug/Kg		3/17/2015 15:27
1,3-Dichlorobenzene	< 3.05	ug/Kg		3/17/2015 15:27
1,4-Dichlorobenzene	< 3.05	ug/Kg		3/17/2015 15:27
Bromodichloromethane	< 3.05	ug/Kg		3/17/2015 15:27
Bromoform	< 7.62	ug/Kg		3/17/2015 15:27
Bromomethane	< 3.05	ug/Kg		3/17/2015 15:27
Carbon Tetrachloride	< 3.05	ug/Kg		3/17/2015 15:27
Chlorobenzene	< 3.05	ug/Kg		3/17/2015 15:27
Chloroethane	< 3.05	ug/Kg		3/17/2015 15:27
Chloroform	< 3.05	ug/Kg		3/17/2015 15:27
Chloromethane	< 3.05	ug/Kg		3/17/2015 15:27
cis-1,2-Dichloroethene	2.71	ug/Kg	J	3/17/2015 15:27
cis-1,3-Dichloropropene	< 3.05	ug/Kg		3/17/2015 15:27
Dibromochloromethane	< 3.05	ug/Kg		3/17/2015 15:27
Methylene chloride	< 7.62	ug/Kg		3/17/2015 15:27
Tetrachloroethene	28.5	ug/Kg		3/17/2015 15:27
trans-1,2-Dichloroethene	< 3.05	ug/Kg		3/17/2015 15:27
trans-1,3-Dichloropropene	< 3.05	ug/Kg		3/17/2015 15:27
Trichloroethene	1.81	ug/Kg	J	3/17/2015 15:27



3/17/2015 15:27

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-52 (8-9)

Trichlorofluoromethane

**Lab Sample ID:** 150827-01 **Date Sampled:** 3/10/2015

Matrix: Soil Date Received: 3/16/2015

< 3.05

Vinyl chloride	< 3.05	ug/Kg			3/17/2015	5 15:27
<u>Surrogate</u>	<u>Percent</u>	t Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	1	110	81.1 - 124		3/17/2015	15:27
4-Bromofluorobenzene	9	2.0	89.2 - 109		3/17/2015	15:27
Pentafluorobenzene	9	6.5	92.2 - 109		3/17/2015	15:27
Toluene-D8	9	5.6	92.4 - 109		3/17/2015	15:27

ug/Kg

Method Reference(s): EPA 8260C EPA 5035

Data File: x20982.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-53 (7-8)

 Lab Sample ID:
 150827-02
 Date Sampled:
 3/10/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,1,1-Trichloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,1,2,2-Tetrachloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,1,2-Trichloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,1-Dichloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,1-Dichloroethene	< 3.94	ug/Kg		3/17/2015 15:51
1,2-Dichlorobenzene	< 3.94	ug/Kg		3/17/2015 15:51
1,2-Dichloroethane	< 3.94	ug/Kg		3/17/2015 15:51
1,2-Dichloropropane	< 3.94	ug/Kg		3/17/2015 15:51
1,3-Dichlorobenzene	< 3.94	ug/Kg		3/17/2015 15:51
1,4-Dichlorobenzene	< 3.94	ug/Kg		3/17/2015 15:51
Bromodichloromethane	< 3.94	ug/Kg		3/17/2015 15:51
Bromoform	< 9.86	ug/Kg		3/17/2015 15:51
Bromomethane	< 3.94	ug/Kg		3/17/2015 15:51
Carbon Tetrachloride	< 3.94	ug/Kg		3/17/2015 15:51
Chlorobenzene	< 3.94	ug/Kg		3/17/2015 15:51
Chloroethane	< 3.94	ug/Kg		3/17/2015 15:51
Chloroform	< 3.94	ug/Kg		3/17/2015 15:51
Chloromethane	< 3.94	ug/Kg		3/17/2015 15:51
cis-1,2-Dichloroethene	< 3.94	ug/Kg		3/17/2015 15:51
cis-1,3-Dichloropropene	< 3.94	ug/Kg		3/17/2015 15:51
Dibromochloromethane	< 3.94	ug/Kg		3/17/2015 15:51
Methylene chloride	< 9.86	ug/Kg		3/17/2015 15:51
Tetrachloroethene	55.9	ug/Kg		3/17/2015 15:51
trans-1,2-Dichloroethene	< 3.94	ug/Kg		3/17/2015 15:51
trans-1,3-Dichloropropene	< 3.94	ug/Kg		3/17/2015 15:51
Trichloroethene	< 3.94	ug/Kg		3/17/2015 15:51



3/17/2015 15:51

3/17/2015

**Client: GZA Geo Environmental of New York** 

**Project Reference:** Northtown Plaza

Sample Identifier: SP-53 (7-8)

Trichlorofluoromethane

Lab Sample ID: 150827-02 **Date Sampled:** 3/10/2015

**Matrix: Date Received:** 3/16/2015 Soil

< 3.94

Vinyl chloride	< 3.94 ug/Kg			3/17/2015	5 15:51
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	108	81.1 - 124		3/17/2015	15:51
4-Bromofluorobenzene	90.7	89.2 - 109		3/17/2015	15:51
Pentafluorobenzene	95.2	92.2 - 109		3/17/2015	15:51
Toluene-D8	95.4	92.4 - 109		3/17/2015	15:51

ug/Kg

Method Reference(s): EPA 8260C EPA 5035

Data File: x20983.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-54 (15-16)

 Lab Sample ID:
 150827-03
 Date Sampled:
 3/10/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,1,1-Trichloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,1,2,2-Tetrachloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,1,2-Trichloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,1-Dichloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,1-Dichloroethene	< 3170	ug/Kg		3/19/2015 21:48
1,2-Dichlorobenzene	< 3170	ug/Kg		3/19/2015 21:48
1,2-Dichloroethane	< 3170	ug/Kg		3/19/2015 21:48
1,2-Dichloropropane	< 3170	ug/Kg		3/19/2015 21:48
1,3-Dichlorobenzene	< 3170	ug/Kg		3/19/2015 21:48
1,4-Dichlorobenzene	< 3170	ug/Kg		3/19/2015 21:48
Bromodichloromethane	< 3170	ug/Kg		3/19/2015 21:48
Bromoform	< 7930	ug/Kg		3/19/2015 21:48
Bromomethane	< 3170	ug/Kg		3/19/2015 21:48
Carbon Tetrachloride	< 3170	ug/Kg		3/19/2015 21:48
Chlorobenzene	< 3170	ug/Kg		3/19/2015 21:48
Chloroethane	< 3170	ug/Kg		3/19/2015 21:48
Chloroform	< 3170	ug/Kg		3/19/2015 21:48
Chloromethane	< 3170	ug/Kg		3/19/2015 21:48
cis-1,2-Dichloroethene	< 3170	ug/Kg		3/19/2015 21:48
cis-1,3-Dichloropropene	< 3170	ug/Kg		3/19/2015 21:48
Dibromochloromethane	< 3170	ug/Kg		3/19/2015 21:48
Methylene chloride	< 7930	ug/Kg		3/19/2015 21:48
Tetrachloroethene	56600	ug/Kg		3/19/2015 21:48
trans-1,2-Dichloroethene	< 3170	ug/Kg		3/19/2015 21:48
trans-1,3-Dichloropropene	< 3170	ug/Kg		3/19/2015 21:48
Trichloroethene	< 3170	ug/Kg		3/19/2015 21:48



**GZA Geo Environmental of New York** Client:

**Project Reference:** Northtown Plaza

Sample Identifier: SP-54 (15-16)

Lab Sample ID: 150827-03 **Date Sampled:** 3/10/2015

**Matrix: Date Received:** Soil 3/16/2015

<u>Surrogate</u>	<u>Percen</u>	t Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>
Vinyl chloride	< 3170	ug/Kg			3/19/2015 21:48
Trichlorofluoromethane	< 3170	ug/Kg			3/19/2015 21:48

98.3 81.1 - 124 1,2-Dichloroethane-d4 3/19/2015 21:48 89.2 - 109 4-Bromofluorobenzene 102 3/19/2015 21:48 Pentafluorobenzene 102 92.2 - 109 3/19/2015 21:48 Toluene-D8 98.2 92.4 - 109 3/19/2015 21:48

Method Reference(s): EPA 8260C EPA 5035

Data File: x21109.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-54 (8-9)

 Lab Sample ID:
 150827-04
 Date Sampled:
 3/10/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,1,1-Trichloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,1,2,2-Tetrachloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,1,2-Trichloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,1-Dichloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,1-Dichloroethene	< 95.8	ug/Kg		3/20/2015 23:53
1,2-Dichlorobenzene	< 95.8	ug/Kg		3/20/2015 23:53
1,2-Dichloroethane	< 95.8	ug/Kg		3/20/2015 23:53
1,2-Dichloropropane	< 95.8	ug/Kg		3/20/2015 23:53
1,3-Dichlorobenzene	< 95.8	ug/Kg		3/20/2015 23:53
1,4-Dichlorobenzene	< 95.8	ug/Kg		3/20/2015 23:53
Bromodichloromethane	< 95.8	ug/Kg		3/20/2015 23:53
Bromoform	< 239	ug/Kg		3/20/2015 23:53
Bromomethane	< 95.8	ug/Kg		3/20/2015 23:53
Carbon Tetrachloride	< 95.8	ug/Kg		3/20/2015 23:53
Chlorobenzene	< 95.8	ug/Kg		3/20/2015 23:53
Chloroethane	< 95.8	ug/Kg		3/20/2015 23:53
Chloroform	< 95.8	ug/Kg		3/20/2015 23:53
Chloromethane	< 95.8	ug/Kg		3/20/2015 23:53
cis-1,2-Dichloroethene	< 95.8	ug/Kg		3/20/2015 23:53
cis-1,3-Dichloropropene	< 95.8	ug/Kg		3/20/2015 23:53
Dibromochloromethane	< 95.8	ug/Kg		3/20/2015 23:53
Methylene chloride	< 239	ug/Kg		3/20/2015 23:53
Tetrachloroethene	4010	ug/Kg		3/20/2015 23:53
trans-1,2-Dichloroethene	< 95.8	ug/Kg		3/20/2015 23:53
trans-1,3-Dichloropropene	< 95.8	ug/Kg		3/20/2015 23:53
Trichloroethene	< 95.8	ug/Kg		3/20/2015 23:53



3/20/2015 23:53

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-54 (8-9)

Trichlorofluoromethane

**Lab Sample ID:** 150827-04 **Date Sampled:** 3/10/2015

Matrix: Soil Date Received: 3/16/2015

< 95.8

Vinyl chloride	< 95.8 ug/Kg			3/20/2015	3 23:53
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	107	81.1 - 124		3/20/2015	23:53
4-Bromofluorobenzene	92.3	89.2 - 109		3/20/2015	23:53
Pentafluorobenzene	96.6	92.2 - 109		3/20/2015	23:53
Toluene-D8	97.4	92.4 - 109		3/20/2015	23:53

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21178.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-55 (10-11)

Lab Sample ID:150827-05Date Sampled:3/11/2015Matrix:SoilDate Received:3/16/2015

## **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	< 101	ug/Kg		3/21/2015 00:17
1,1,1-Trichloroethane	< 101	ug/Kg		3/21/2015 00:17
1,1,2,2-Tetrachloroethane	< 101	ug/Kg		3/21/2015 00:17
1,1,2-Trichloroethane	< 101	ug/Kg		3/21/2015 00:17
1,1-Dichloroethane	< 101	ug/Kg		3/21/2015 00:17
1,1-Dichloroethene	< 101	ug/Kg		3/21/2015 00:17
1,2-Dichlorobenzene	< 101	ug/Kg		3/21/2015 00:17
1,2-Dichloroethane	< 101	ug/Kg		3/21/2015 00:17
1,2-Dichloropropane	< 101	ug/Kg		3/21/2015 00:17
1,3-Dichlorobenzene	< 101	ug/Kg		3/21/2015 00:17
1,4-Dichlorobenzene	< 101	ug/Kg		3/21/2015 00:17
Bromodichloromethane	< 101	ug/Kg		3/21/2015 00:17
Bromoform	< 254	ug/Kg		3/21/2015 00:17
Bromomethane	< 101	ug/Kg		3/21/2015 00:17
Carbon Tetrachloride	< 101	ug/Kg		3/21/2015 00:17
Chlorobenzene	< 101	ug/Kg		3/21/2015 00:17
Chloroethane	< 101	ug/Kg		3/21/2015 00:17
Chloroform	< 101	ug/Kg		3/21/2015 00:17
Chloromethane	< 101	ug/Kg		3/21/2015 00:17
cis-1,2-Dichloroethene	< 101	ug/Kg		3/21/2015 00:17
cis-1,3-Dichloropropene	< 101	ug/Kg		3/21/2015 00:17
Dibromochloromethane	< 101	ug/Kg		3/21/2015 00:17
Methylene chloride	< 254	ug/Kg		3/21/2015 00:17
Tetrachloroethene	1830	ug/Kg		3/21/2015 00:17
trans-1,2-Dichloroethene	< 101	ug/Kg		3/21/2015 00:17
trans-1,3-Dichloropropene	< 101	ug/Kg		3/21/2015 00:17
Trichloroethene	< 101	ug/Kg		3/21/2015 00:17



**Client: GZA Geo Environmental of New York** 

**Project Reference:** Northtown Plaza

Sample Identifier: SP-55 (10-11)

Lab Sample ID: 150827-05 **Date Sampled:** 3/11/2015

**Matrix: Date Received:** 3/16/2015 Soil

Trichlorofluoromethane	< 101	ug/Kg			3/21/2015	00:17
Vinyl chloride	< 101	ug/Kg			3/21/2015	00:17
<u>Surrogate</u>	<u>Perce</u>	nt Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4		105	81.1 - 124		3/21/2015	00:17
4-Bromofluorobenzene		91.8	89.2 - 109		3/21/2015	00:17
Pentafluorobenzene		95.1	92.2 - 109		3/21/2015	00:17
Toluene-D8		98.3	92.4 - 109		3/21/2015	00:17

Method Reference(s): EPA 8260C EPA 5035

Data File: x21179.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-56 (14-15)

 Lab Sample ID:
 150827-06
 Date Sampled:
 3/11/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,1,1-Trichloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,1,2,2-Tetrachloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,1,2-Trichloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,1-Dichloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,1-Dichloroethene	< 7850	ug/Kg		3/20/2015 15:32
1,2-Dichlorobenzene	< 7850	ug/Kg		3/20/2015 15:32
1,2-Dichloroethane	< 7850	ug/Kg		3/20/2015 15:32
1,2-Dichloropropane	< 7850	ug/Kg		3/20/2015 15:32
1,3-Dichlorobenzene	< 7850	ug/Kg		3/20/2015 15:32
1,4-Dichlorobenzene	< 7850	ug/Kg		3/20/2015 15:32
Bromodichloromethane	< 7850	ug/Kg		3/20/2015 15:32
Bromoform	< 19600	ug/Kg		3/20/2015 15:32
Bromomethane	< 7850	ug/Kg		3/20/2015 15:32
Carbon Tetrachloride	< 7850	ug/Kg		3/20/2015 15:32
Chlorobenzene	< 7850	ug/Kg		3/20/2015 15:32
Chloroethane	< 7850	ug/Kg		3/20/2015 15:32
Chloroform	< 7850	ug/Kg		3/20/2015 15:32
Chloromethane	< 7850	ug/Kg		3/20/2015 15:32
cis-1,2-Dichloroethene	< 7850	ug/Kg		3/20/2015 15:32
cis-1,3-Dichloropropene	< 7850	ug/Kg		3/20/2015 15:32
Dibromochloromethane	< 7850	ug/Kg		3/20/2015 15:32
Methylene chloride	< 19600	ug/Kg		3/20/2015 15:32
Tetrachloroethene	458000	ug/Kg		3/20/2015 15:32
trans-1,2-Dichloroethene	< 7850	ug/Kg		3/20/2015 15:32
trans-1,3-Dichloropropene	< 7850	ug/Kg		3/20/2015 15:32
Trichloroethene	< 7850	ug/Kg		3/20/2015 15:32



**GZA Geo Environmental of New York** Client:

**Project Reference:** Northtown Plaza

Sample Identifier: SP-56 (14-15)

Lab Sample ID: 150827-06 **Date Sampled:** 3/11/2015

**Date Received:** 3/16/2015 Matrix: Soil

Trichlorofluoromethane	< 7850	ug/Kg			3/20/2015	5 15:32
Vinyl chloride	< 7850	ug/Kg			3/20/2015	5 15:32
<u>Surrogate</u>	Percen	t Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4		106	81.1 - 124		3/20/2015	15:32

1,2-Dichloroethane-d4 3/20/2015 15:32 4-Bromofluorobenzene 98.8 89.2 - 109 3/20/2015 15:32 Pentafluorobenzene 100 92.2 - 109 3/20/2015 15:32 Toluene-D8 96.7 92.4 - 109 3/20/2015 15:32

Method Reference(s): EPA 8260C EPA 5035

Data File: x21157.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-57 (12-13)

Lab Sample ID:150827-07Date Sampled:3/11/2015Matrix:SoilDate Received:3/16/2015

#### **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 805	ug/Kg		3/19/2015 22:35
1,1,1-Trichloroethane	< 805	ug/Kg		3/19/2015 22:35
1,1,2,2-Tetrachloroethane	< 805	ug/Kg		3/19/2015 22:35
1,1,2-Trichloroethane	< 805	ug/Kg		3/19/2015 22:35
1,1-Dichloroethane	< 805	ug/Kg		3/19/2015 22:35
1,1-Dichloroethene	< 805	ug/Kg		3/19/2015 22:35
1,2-Dichlorobenzene	< 805	ug/Kg		3/19/2015 22:35
1,2-Dichloroethane	< 805	ug/Kg		3/19/2015 22:35
1,2-Dichloropropane	< 805	ug/Kg		3/19/2015 22:35
1,3-Dichlorobenzene	< 805	ug/Kg		3/19/2015 22:35
1,4-Dichlorobenzene	< 805	ug/Kg		3/19/2015 22:35
Bromodichloromethane	< 805	ug/Kg		3/19/2015 22:35
Bromoform	< 2010	ug/Kg		3/19/2015 22:35
Bromomethane	< 805	ug/Kg		3/19/2015 22:35
Carbon Tetrachloride	< 805	ug/Kg		3/19/2015 22:35
Chlorobenzene	< 805	ug/Kg		3/19/2015 22:35
Chloroethane	< 805	ug/Kg		3/19/2015 22:35
Chloroform	< 805	ug/Kg		3/19/2015 22:35
Chloromethane	< 805	ug/Kg		3/19/2015 22:35
cis-1,2-Dichloroethene	< 805	ug/Kg		3/19/2015 22:35
cis-1,3-Dichloropropene	< 805	ug/Kg		3/19/2015 22:35
Dibromochloromethane	< 805	ug/Kg		3/19/2015 22:35
Methylene chloride	< 2010	ug/Kg		3/19/2015 22:35
Tetrachloroethene	9570	ug/Kg		3/19/2015 22:35
trans-1,2-Dichloroethene	< 805	ug/Kg		3/19/2015 22:35
trans-1,3-Dichloropropene	< 805	ug/Kg		3/19/2015 22:35
Trichloroethene	< 805	ug/Kg		3/19/2015 22:35



3/19/2015 22:35

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-57 (12-13)

Trichlorofluoromethane

**Lab Sample ID:** 150827-07 **Date Sampled:** 3/11/2015

Matrix: Soil Date Received: 3/16/2015

< 805

Vinyl chloride	< 805 u	g/Kg		3/19/2015	22:35
<u>Surrogate</u>	Percent Re	<u>covery</u> <u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	98.5	81.1 - 124		3/19/2015	22:35
4-Bromofluorobenzene	93.7	89.2 - 109		3/19/2015	22:35
Pentafluorobenzene	102	92.2 - 109		3/19/2015	22:35
Toluene-D8	100	92.4 - 109		3/19/2015	22:35

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21111.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-58 (11-12)

 Lab Sample ID:
 150827-08
 Date Sampled:
 3/11/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 833	ug/Kg		3/19/2015 22:58
1,1,1-Trichloroethane	< 833	ug/Kg		3/19/2015 22:58
1,1,2,2-Tetrachloroethane	< 833	ug/Kg		3/19/2015 22:58
1,1,2-Trichloroethane	< 833	ug/Kg		3/19/2015 22:58
1,1-Dichloroethane	< 833	ug/Kg		3/19/2015 22:58
1,1-Dichloroethene	< 833	ug/Kg		3/19/2015 22:58
1,2-Dichlorobenzene	< 833	ug/Kg		3/19/2015 22:58
1,2-Dichloroethane	< 833	ug/Kg		3/19/2015 22:58
1,2-Dichloropropane	< 833	ug/Kg		3/19/2015 22:58
1,3-Dichlorobenzene	< 833	ug/Kg		3/19/2015 22:58
1,4-Dichlorobenzene	< 833	ug/Kg		3/19/2015 22:58
Bromodichloromethane	< 833	ug/Kg		3/19/2015 22:58
Bromoform	< 2080	ug/Kg		3/19/2015 22:58
Bromomethane	< 833	ug/Kg		3/19/2015 22:58
Carbon Tetrachloride	< 833	ug/Kg		3/19/2015 22:58
Chlorobenzene	< 833	ug/Kg		3/19/2015 22:58
Chloroethane	< 833	ug/Kg		3/19/2015 22:58
Chloroform	< 833	ug/Kg		3/19/2015 22:58
Chloromethane	< 833	ug/Kg		3/19/2015 22:58
cis-1,2-Dichloroethene	< 833	ug/Kg		3/19/2015 22:58
cis-1,3-Dichloropropene	< 833	ug/Kg		3/19/2015 22:58
Dibromochloromethane	< 833	ug/Kg		3/19/2015 22:58
Methylene chloride	< 2080	ug/Kg		3/19/2015 22:58
Tetrachloroethene	24400	ug/Kg		3/19/2015 22:58
trans-1,2-Dichloroethene	< 833	ug/Kg		3/19/2015 22:58
trans-1,3-Dichloropropene	< 833	ug/Kg		3/19/2015 22:58
Trichloroethene	< 833	ug/Kg		3/19/2015 22:58



3/19/2015 22:58

22:58

3/19/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-58 (11-12)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-08 **Date Sampled:** 3/11/2015

Matrix: Soil Date Received: 3/16/2015

< 833

Vinyl chloride	< 833	ug/Kg			3/19/2015	22:58
<u>Surrogate</u>	Percent Recovery		<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	99	9.1	81.1 - 124		3/19/2015	22:58
4-Bromofluorobenzene	94	1.3	89.2 - 109		3/19/2015	22:58
Pentafluorobenzene	1	03	92.2 - 109		3/19/2015	22:58

101

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21112.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-59 (13-14)

 Lab Sample ID:
 150827-09
 Date Sampled:
 3/11/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,1,1-Trichloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,1,2,2-Tetrachloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,1,2-Trichloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,1-Dichloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,1-Dichloroethene	< 2830	ug/Kg		3/20/2015 15:55
1,2-Dichlorobenzene	< 2830	ug/Kg		3/20/2015 15:55
1,2-Dichloroethane	< 2830	ug/Kg		3/20/2015 15:55
1,2-Dichloropropane	< 2830	ug/Kg		3/20/2015 15:55
1,3-Dichlorobenzene	< 2830	ug/Kg		3/20/2015 15:55
1,4-Dichlorobenzene	< 2830	ug/Kg		3/20/2015 15:55
Bromodichloromethane	< 2830	ug/Kg		3/20/2015 15:55
Bromoform	< 7080	ug/Kg		3/20/2015 15:55
Bromomethane	< 2830	ug/Kg		3/20/2015 15:55
Carbon Tetrachloride	< 2830	ug/Kg		3/20/2015 15:55
Chlorobenzene	< 2830	ug/Kg		3/20/2015 15:55
Chloroethane	< 2830	ug/Kg		3/20/2015 15:55
Chloroform	< 2830	ug/Kg		3/20/2015 15:55
Chloromethane	< 2830	ug/Kg		3/20/2015 15:55
cis-1,2-Dichloroethene	< 2830	ug/Kg		3/20/2015 15:55
cis-1,3-Dichloropropene	< 2830	ug/Kg		3/20/2015 15:55
Dibromochloromethane	< 2830	ug/Kg		3/20/2015 15:55
Methylene chloride	< 7080	ug/Kg		3/20/2015 15:55
Tetrachloroethene	105000	ug/Kg		3/20/2015 15:55
trans-1,2-Dichloroethene	< 2830	ug/Kg		3/20/2015 15:55
trans-1,3-Dichloropropene	< 2830	ug/Kg		3/20/2015 15:55
Trichloroethene	< 2830	ug/Kg		3/20/2015 15:55



Client: **GZA Geo Environmental of New York** 

**Project Reference:** Northtown Plaza

Sample Identifier: SP-59 (13-14)

Lab Sample ID: 150827-09 **Date Sampled:** 3/11/2015

**Matrix: Date Received:** 3/16/2015 Soil

Trichlorofluoromethane	< 2830	ug/Kg			3/20/2015	15:55
Vinyl chloride	< 2830	ug/Kg			3/20/2015	15:55
		Percent Recovery				
<u>Surrogate</u>	<u>Percen</u>	<u>it Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed

4-Bromofluorobenzene 94.2 89.2 - 109 3/20/2015 15:55 Pentafluorobenzene 99.3 92.2 - 109 3/20/2015 15:55 92.4 - 109 Toluene-D8 98.4 3/20/2015 15:55

Method Reference(s): EPA 8260C EPA 5035

Data File: x21158.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-59 (20-21)

 Lab Sample ID:
 150827-10
 Date Sampled:
 3/11/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,1,1-Trichloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,1,2,2-Tetrachloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,1,2-Trichloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,1-Dichloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,1-Dichloroethene	< 2430	ug/Kg		3/20/2015 16:19
1,2-Dichlorobenzene	< 2430	ug/Kg		3/20/2015 16:19
1,2-Dichloroethane	< 2430	ug/Kg		3/20/2015 16:19
1,2-Dichloropropane	< 2430	ug/Kg		3/20/2015 16:19
1,3-Dichlorobenzene	< 2430	ug/Kg		3/20/2015 16:19
1,4-Dichlorobenzene	< 2430	ug/Kg		3/20/2015 16:19
Bromodichloromethane	< 2430	ug/Kg		3/20/2015 16:19
Bromoform	< 6090	ug/Kg		3/20/2015 16:19
Bromomethane	< 2430	ug/Kg		3/20/2015 16:19
Carbon Tetrachloride	< 2430	ug/Kg		3/20/2015 16:19
Chlorobenzene	< 2430	ug/Kg		3/20/2015 16:19
Chloroethane	< 2430	ug/Kg		3/20/2015 16:19
Chloroform	< 2430	ug/Kg		3/20/2015 16:19
Chloromethane	< 2430	ug/Kg		3/20/2015 16:19
cis-1,2-Dichloroethene	< 2430	ug/Kg		3/20/2015 16:19
cis-1,3-Dichloropropene	< 2430	ug/Kg		3/20/2015 16:19
Dibromochloromethane	< 2430	ug/Kg		3/20/2015 16:19
Methylene chloride	< 6090	ug/Kg		3/20/2015 16:19
Tetrachloroethene	82600	ug/Kg		3/20/2015 16:19
trans-1,2-Dichloroethene	< 2430	ug/Kg		3/20/2015 16:19
trans-1,3-Dichloropropene	< 2430	ug/Kg		3/20/2015 16:19
Trichloroethene	< 2430	ug/Kg		3/20/2015 16:19



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-59 (20-21)

**Lab Sample ID:** 150827-10 **Date Sampled:** 3/11/2015

Matrix: Soil Date Received: 3/16/2015

Surrogate	Percer	nt Recovery	Limits	Outliers	Date Analyz	zed
Vinyl chloride	< 2430	ug/Kg			3/20/2015	16:19
Trichlorofluoromethane	< 2430	ug/Kg			3/20/2015	16:19

<del>Dui i ogute</del>	T CI CCII I ICCO I CI J	<u> </u>	<u>outners</u>	Daterinary	<u> LCu</u>
1,2-Dichloroethane-d4	104	81.1 - 124		3/20/2015	16:19
4-Bromofluorobenzene	95.8	89.2 - 109		3/20/2015	16:19
Pentafluorobenzene	99.4	92.2 - 109		3/20/2015	16:19
Toluene-D8	97.6	92.4 - 109		3/20/2015	16:19

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21159.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-60 (5-6)

 Lab Sample ID:
 150827-11
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,1,1-Trichloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,1,2,2-Tetrachloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,1,2-Trichloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,1-Dichloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,1-Dichloroethene	< 4.86	ug/Kg		3/21/2015 00:42
1,2-Dichlorobenzene	< 4.86	ug/Kg		3/21/2015 00:42
1,2-Dichloroethane	< 4.86	ug/Kg		3/21/2015 00:42
1,2-Dichloropropane	< 4.86	ug/Kg		3/21/2015 00:42
1,3-Dichlorobenzene	< 4.86	ug/Kg		3/21/2015 00:42
1,4-Dichlorobenzene	< 4.86	ug/Kg		3/21/2015 00:42
Bromodichloromethane	< 4.86	ug/Kg		3/21/2015 00:42
Bromoform	< 12.1	ug/Kg		3/21/2015 00:42
Bromomethane	< 4.86	ug/Kg		3/21/2015 00:42
Carbon Tetrachloride	< 4.86	ug/Kg		3/21/2015 00:42
Chlorobenzene	< 4.86	ug/Kg		3/21/2015 00:42
Chloroethane	< 4.86	ug/Kg		3/21/2015 00:42
Chloroform	< 4.86	ug/Kg		3/21/2015 00:42
Chloromethane	< 4.86	ug/Kg		3/21/2015 00:42
cis-1,2-Dichloroethene	29.6	ug/Kg		3/21/2015 00:42
cis-1,3-Dichloropropene	< 4.86	ug/Kg		3/21/2015 00:42
Dibromochloromethane	< 4.86	ug/Kg		3/21/2015 00:42
Methylene chloride	< 12.1	ug/Kg		3/21/2015 00:42
Tetrachloroethene	25.9	ug/Kg		3/21/2015 00:42
trans-1,2-Dichloroethene	< 4.86	ug/Kg		3/21/2015 00:42
trans-1,3-Dichloropropene	< 4.86	ug/Kg		3/21/2015 00:42
Trichloroethene	< 4.86	ug/Kg		3/21/2015 00:42



3/21/2015 00:42

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-60 (5-6)

Trichlorofluoromethane

**Lab Sample ID:** 150827-11 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 4.86

Vinyl chloride	< 4.86 ug/Kg			3/21/2015	5 00:42
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	vzed
1,2-Dichloroethane-d4	104	81.1 - 124		3/21/2015	00:42
4-Bromofluorobenzene	97.7	89.2 - 109		3/21/2015	00:42
Pentafluorobenzene	93.8	92.2 - 109		3/21/2015	00:42
Toluene-D8	99.7	92.4 - 109		3/21/2015	00:42

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21180.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-61 (7-8)

**Lab Sample ID:** 150827-12 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,1,1-Trichloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,1,2,2-Tetrachloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,1,2-Trichloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,1-Dichloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,1-Dichloroethene	< 18.8	ug/Kg		3/21/2015 01:06
1,2-Dichlorobenzene	< 18.8	ug/Kg		3/21/2015 01:06
1,2-Dichloroethane	< 18.8	ug/Kg		3/21/2015 01:06
1,2-Dichloropropane	< 18.8	ug/Kg		3/21/2015 01:06
1,3-Dichlorobenzene	< 18.8	ug/Kg		3/21/2015 01:06
1,4-Dichlorobenzene	< 18.8	ug/Kg		3/21/2015 01:06
Bromodichloromethane	< 18.8	ug/Kg		3/21/2015 01:06
Bromoform	< 47.1	ug/Kg		3/21/2015 01:06
Bromomethane	< 18.8	ug/Kg		3/21/2015 01:06
Carbon Tetrachloride	< 18.8	ug/Kg		3/21/2015 01:06
Chlorobenzene	< 18.8	ug/Kg		3/21/2015 01:06
Chloroethane	< 18.8	ug/Kg		3/21/2015 01:06
Chloroform	< 18.8	ug/Kg		3/21/2015 01:06
Chloromethane	< 18.8	ug/Kg		3/21/2015 01:06
cis-1,2-Dichloroethene	< 18.8	ug/Kg		3/21/2015 01:06
cis-1,3-Dichloropropene	< 18.8	ug/Kg		3/21/2015 01:06
Dibromochloromethane	< 18.8	ug/Kg		3/21/2015 01:06
Methylene chloride	< 47.1	ug/Kg		3/21/2015 01:06
Tetrachloroethene	837	ug/Kg		3/21/2015 01:06
trans-1,2-Dichloroethene	< 18.8	ug/Kg		3/21/2015 01:06
trans-1,3-Dichloropropene	< 18.8	ug/Kg		3/21/2015 01:06
Trichloroethene	30.0	ug/Kg		3/21/2015 01:06



3/21/2015 01:06

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-61 (7-8)

Trichlorofluoromethane

**Lab Sample ID:** 150827-12 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 18.8

		0, 0				
Vinyl chloride	< 18.8	ug/Kg			3/21/2015	01:06
<u>Surrogate</u>	<u>Percent</u>	<b>Percent Recovery</b>		<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	1	09	81.1 - 124		3/21/2015	01:06
4-Bromofluorobenzene	1	00	89.2 - 109		3/21/2015	01:06
Pentafluorobenzene	98	8.0	92.2 - 109		3/21/2015	01:06
Toluene-D8	91	9.6	92.4 - 109		3/21/2015	01:06

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21181.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-61 (19-20)

 Lab Sample ID:
 150827-13
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	Result	<u>Units</u>	Qualifier	Date Analyzed
1,1,1,2-Tetrachloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,1,1-Trichloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,1,2,2-Tetrachloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,1,2-Trichloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,1-Dichloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,1-Dichloroethene	< 1960	ug/Kg		3/20/2015 16:43
1,2-Dichlorobenzene	< 1960	ug/Kg		3/20/2015 16:43
1,2-Dichloroethane	< 1960	ug/Kg		3/20/2015 16:43
1,2-Dichloropropane	< 1960	ug/Kg		3/20/2015 16:43
1,3-Dichlorobenzene	< 1960	ug/Kg		3/20/2015 16:43
1,4-Dichlorobenzene	< 1960	ug/Kg		3/20/2015 16:43
Bromodichloromethane	< 1960	ug/Kg		3/20/2015 16:43
Bromoform	< 4900	ug/Kg		3/20/2015 16:43
Bromomethane	< 1960	ug/Kg		3/20/2015 16:43
Carbon Tetrachloride	< 1960	ug/Kg		3/20/2015 16:43
Chlorobenzene	< 1960	ug/Kg		3/20/2015 16:43
Chloroethane	< 1960	ug/Kg		3/20/2015 16:43
Chloroform	< 1960	ug/Kg		3/20/2015 16:43
Chloromethane	< 1960	ug/Kg		3/20/2015 16:43
cis-1,2-Dichloroethene	< 1960	ug/Kg		3/20/2015 16:43
cis-1,3-Dichloropropene	< 1960	ug/Kg		3/20/2015 16:43
Dibromochloromethane	< 1960	ug/Kg		3/20/2015 16:43
Methylene chloride	< 4900	ug/Kg		3/20/2015 16:43
Tetrachloroethene	97900	ug/Kg		3/20/2015 16:43
trans-1,2-Dichloroethene	< 1960	ug/Kg		3/20/2015 16:43
trans-1,3-Dichloropropene	< 1960	ug/Kg		3/20/2015 16:43
Trichloroethene	< 1960	ug/Kg		3/20/2015 16:43



3/20/2015 16:43

16:43

3/20/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-61 (19-20)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-13 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 1960

Vinyl chloride	< 1960 ug/Kg			3/20/2015	5 16:43
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	101	81.1 - 124		3/20/2015	16:43
4-Bromofluorobenzene	95.8	89.2 - 109		3/20/2015	16:43
Pentafluorobenzene	97.7	92.2 - 109		3/20/2015	16:43

96.2

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21160.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-62 (16-17)

 Lab Sample ID:
 150827-14
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

## **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,1,1-Trichloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,1,2,2-Tetrachloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,1,2-Trichloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,1-Dichloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,1-Dichloroethene	< 9330	ug/Kg		3/20/2015 17:06
1,2-Dichlorobenzene	< 9330	ug/Kg		3/20/2015 17:06
1,2-Dichloroethane	< 9330	ug/Kg		3/20/2015 17:06
1,2-Dichloropropane	< 9330	ug/Kg		3/20/2015 17:06
1,3-Dichlorobenzene	< 9330	ug/Kg		3/20/2015 17:06
1,4-Dichlorobenzene	< 9330	ug/Kg		3/20/2015 17:06
Bromodichloromethane	< 9330	ug/Kg		3/20/2015 17:06
Bromoform	< 23300	ug/Kg		3/20/2015 17:06
Bromomethane	< 9330	ug/Kg		3/20/2015 17:06
Carbon Tetrachloride	< 9330	ug/Kg		3/20/2015 17:06
Chlorobenzene	< 9330	ug/Kg		3/20/2015 17:06
Chloroethane	< 9330	ug/Kg		3/20/2015 17:06
Chloroform	< 9330	ug/Kg		3/20/2015 17:06
Chloromethane	< 9330	ug/Kg		3/20/2015 17:06
cis-1,2-Dichloroethene	< 9330	ug/Kg		3/20/2015 17:06
cis-1,3-Dichloropropene	< 9330	ug/Kg		3/20/2015 17:06
Dibromochloromethane	< 9330	ug/Kg		3/20/2015 17:06
Methylene chloride	< 23300	ug/Kg		3/20/2015 17:06
Tetrachloroethene	275000	ug/Kg		3/20/2015 17:06
trans-1,2-Dichloroethene	< 9330	ug/Kg		3/20/2015 17:06
trans-1,3-Dichloropropene	< 9330	ug/Kg		3/20/2015 17:06
Trichloroethene	< 9330	ug/Kg		3/20/2015 17:06



3/20/2015 17:06

17:06

3/20/2015

Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-62 (16-17)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-14 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 9330

Vinyl chloride	< 9330 ug/Kg			3/20/2015	5 17:06	
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Limits</u> <u>Outliers</u>		<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	108	81.1 - 124		3/20/2015	17:06	
4-Bromofluorobenzene	97.4	89.2 - 109		3/20/2015	17:06	
Pentafluorobenzene	96.0	92.2 - 109		3/20/2015	17:06	

96.9

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21161.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** Field Duplicate 01

 Lab Sample ID:
 150827-15
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,1,1-Trichloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,1,2,2-Tetrachloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,1,2-Trichloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,1-Dichloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,1-Dichloroethene	< 7640	ug/Kg		3/20/2015 17:30
1,2-Dichlorobenzene	< 7640	ug/Kg		3/20/2015 17:30
1,2-Dichloroethane	< 7640	ug/Kg		3/20/2015 17:30
1,2-Dichloropropane	< 7640	ug/Kg		3/20/2015 17:30
1,3-Dichlorobenzene	< 7640	ug/Kg		3/20/2015 17:30
1,4-Dichlorobenzene	< 7640	ug/Kg		3/20/2015 17:30
Bromodichloromethane	< 7640	ug/Kg		3/20/2015 17:30
Bromoform	< 19100	ug/Kg		3/20/2015 17:30
Bromomethane	< 7640	ug/Kg		3/20/2015 17:30
Carbon Tetrachloride	< 7640	ug/Kg		3/20/2015 17:30
Chlorobenzene	< 7640	ug/Kg		3/20/2015 17:30
Chloroethane	< 7640	ug/Kg		3/20/2015 17:30
Chloroform	< 7640	ug/Kg		3/20/2015 17:30
Chloromethane	< 7640	ug/Kg		3/20/2015 17:30
cis-1,2-Dichloroethene	< 7640	ug/Kg		3/20/2015 17:30
cis-1,3-Dichloropropene	< 7640	ug/Kg		3/20/2015 17:30
Dibromochloromethane	< 7640	ug/Kg		3/20/2015 17:30
Methylene chloride	< 19100	ug/Kg		3/20/2015 17:30
Tetrachloroethene	168000	ug/Kg		3/20/2015 17:30
trans-1,2-Dichloroethene	< 7640	ug/Kg		3/20/2015 17:30
trans-1,3-Dichloropropene	< 7640	ug/Kg		3/20/2015 17:30
Trichloroethene	< 7640	ug/Kg		3/20/2015 17:30



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** Field Duplicate 01

 Lab Sample ID:
 150827-15
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

 Trichlorofluoromethane
 < 7640</td>
 ug/Kg
 3/20/2015
 17:30

 Vinyl chloride
 < 7640</td>
 ug/Kg
 3/20/2015
 17:30

3					-1 -1		
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	<u>vzed</u>		
1,2-Dichloroethane-d4	105	81.1 - 124		3/20/2015	17:30		
4-Bromofluorobenzene	93.1	89.2 - 109		3/20/2015	17:30		
Pentafluorobenzene	99.1	92.2 - 109		3/20/2015	17:30		
Toluene-D8	97.0	92.4 - 109		3/20/2015	17:30		

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21162.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-63 (8-9)

 Lab Sample ID:
 150827-16
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

Analyte	<b>Result</b>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,1,1-Trichloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,1,2,2-Tetrachloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,1,2-Trichloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,1-Dichloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,1-Dichloroethene	< 49.4	ug/Kg		3/21/2015 01:31
1,2-Dichlorobenzene	< 49.4	ug/Kg		3/21/2015 01:31
1,2-Dichloroethane	< 49.4	ug/Kg		3/21/2015 01:31
1,2-Dichloropropane	< 49.4	ug/Kg		3/21/2015 01:31
1,3-Dichlorobenzene	< 49.4	ug/Kg		3/21/2015 01:31
1,4-Dichlorobenzene	< 49.4	ug/Kg		3/21/2015 01:31
Bromodichloromethane	< 49.4	ug/Kg		3/21/2015 01:31
Bromoform	< 123	ug/Kg		3/21/2015 01:31
Bromomethane	< 49.4	ug/Kg		3/21/2015 01:31
Carbon Tetrachloride	< 49.4	ug/Kg		3/21/2015 01:31
Chlorobenzene	< 49.4	ug/Kg		3/21/2015 01:31
Chloroethane	< 49.4	ug/Kg		3/21/2015 01:31
Chloroform	< 49.4	ug/Kg		3/21/2015 01:31
Chloromethane	< 49.4	ug/Kg		3/21/2015 01:31
cis-1,2-Dichloroethene	32.4	ug/Kg	J	3/21/2015 01:31
cis-1,3-Dichloropropene	< 49.4	ug/Kg		3/21/2015 01:31
Dibromochloromethane	< 49.4	ug/Kg		3/21/2015 01:31
Methylene chloride	< 123	ug/Kg		3/21/2015 01:31
Tetrachloroethene	861	ug/Kg		3/21/2015 01:31
trans-1,2-Dichloroethene	< 49.4	ug/Kg		3/21/2015 01:31
trans-1,3-Dichloropropene	< 49.4	ug/Kg		3/21/2015 01:31
Trichloroethene	113	ug/Kg		3/21/2015 01:31



3/21/2015 01:31

Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-63 (8-9)

Trichlorofluoromethane

**Lab Sample ID:** 150827-16 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 49.4

Vinyl chloride	< 49.4 ug/Kg			3/21/2015	5 01:31
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	vzed
1,2-Dichloroethane-d4	107	81.1 - 124		3/21/2015	01:31
4-Bromofluorobenzene	99.6	89.2 - 109		3/21/2015	01:31
Pentafluorobenzene	99.4	92.2 - 109		3/21/2015	01:31
Toluene-D8	98.7	92.4 - 109		3/21/2015	01:31

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21182.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-64 (8-9)

 Lab Sample ID:
 150827-17
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,1,1-Trichloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,1,2,2-Tetrachloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,1,2-Trichloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,1-Dichloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,1-Dichloroethene	< 3730	ug/Kg		3/20/2015 17:54
1,2-Dichlorobenzene	< 3730	ug/Kg		3/20/2015 17:54
1,2-Dichloroethane	< 3730	ug/Kg		3/20/2015 17:54
1,2-Dichloropropane	< 3730	ug/Kg		3/20/2015 17:54
1,3-Dichlorobenzene	< 3730	ug/Kg		3/20/2015 17:54
1,4-Dichlorobenzene	< 3730	ug/Kg		3/20/2015 17:54
Bromodichloromethane	< 3730	ug/Kg		3/20/2015 17:54
Bromoform	< 9330	ug/Kg		3/20/2015 17:54
Bromomethane	< 3730	ug/Kg		3/20/2015 17:54
Carbon Tetrachloride	< 3730	ug/Kg		3/20/2015 17:54
Chlorobenzene	< 3730	ug/Kg		3/20/2015 17:54
Chloroethane	< 3730	ug/Kg		3/20/2015 17:54
Chloroform	< 3730	ug/Kg		3/20/2015 17:54
Chloromethane	< 3730	ug/Kg		3/20/2015 17:54
cis-1,2-Dichloroethene	< 3730	ug/Kg		3/20/2015 17:54
cis-1,3-Dichloropropene	< 3730	ug/Kg		3/20/2015 17:54
Dibromochloromethane	< 3730	ug/Kg		3/20/2015 17:54
Methylene chloride	< 9330	ug/Kg		3/20/2015 17:54
Tetrachloroethene	21400	ug/Kg		3/20/2015 17:54
trans-1,2-Dichloroethene	< 3730	ug/Kg		3/20/2015 17:54
trans-1,3-Dichloropropene	< 3730	ug/Kg		3/20/2015 17:54
Trichloroethene	< 3730	ug/Kg		3/20/2015 17:54



3/20/2015 17:54

17:54

3/20/2015

Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-64 (8-9)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-17 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 3730

Vinyl chloride	< 3730 ug/Kg			3/20/2015	5 17:54
<u>Surrogate</u>	Percent Recover	ry <u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	107	81.1 - 124		3/20/2015	17:54
4-Bromofluorobenzene	93.8	89.2 - 109		3/20/2015	17:54
Pentafluorobenzene	96.7	92.2 - 109		3/20/2015	17:54

96.1

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21163.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-64 (21-22)

Lab Sample ID:150827-18Date Sampled:3/12/2015Matrix:SoilDate Received:3/16/2015

# **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,1,1-Trichloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,1,2,2-Tetrachloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,1,2-Trichloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,1-Dichloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,1-Dichloroethene	< 2390	ug/Kg		3/20/2015 18:18
1,2-Dichlorobenzene	< 2390	ug/Kg		3/20/2015 18:18
1,2-Dichloroethane	< 2390	ug/Kg		3/20/2015 18:18
1,2-Dichloropropane	< 2390	ug/Kg		3/20/2015 18:18
1,3-Dichlorobenzene	< 2390	ug/Kg		3/20/2015 18:18
1,4-Dichlorobenzene	< 2390	ug/Kg		3/20/2015 18:18
Bromodichloromethane	< 2390	ug/Kg		3/20/2015 18:18
Bromoform	< 5960	ug/Kg		3/20/2015 18:18
Bromomethane	< 2390	ug/Kg		3/20/2015 18:18
Carbon Tetrachloride	< 2390	ug/Kg		3/20/2015 18:18
Chlorobenzene	< 2390	ug/Kg		3/20/2015 18:18
Chloroethane	< 2390	ug/Kg		3/20/2015 18:18
Chloroform	< 2390	ug/Kg		3/20/2015 18:18
Chloromethane	< 2390	ug/Kg		3/20/2015 18:18
cis-1,2-Dichloroethene	< 2390	ug/Kg		3/20/2015 18:18
cis-1,3-Dichloropropene	< 2390	ug/Kg		3/20/2015 18:18
Dibromochloromethane	< 2390	ug/Kg		3/20/2015 18:18
Methylene chloride	< 5960	ug/Kg		3/20/2015 18:18
Tetrachloroethene	109000	ug/Kg		3/20/2015 18:18
trans-1,2-Dichloroethene	< 2390	ug/Kg		3/20/2015 18:18
trans-1,3-Dichloropropene	< 2390	ug/Kg		3/20/2015 18:18
Trichloroethene	< 2390	ug/Kg		3/20/2015 18:18



3/20/2015 18:18

18:18

3/20/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-64 (21-22)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-18 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 2390

Vinyl chloride	< 2390 ug/Kg			3/20/2015	5 18:18
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	103	81.1 - 124		3/20/2015	18:18
4-Bromofluorobenzene	93.9	89.2 - 109		3/20/2015	18:18
Pentafluorobenzene	97.3	92.2 - 109		3/20/2015	18:18

96.7

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21164.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-65 (16-17)

 Lab Sample ID:
 150827-19
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,1,1-Trichloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,1,2,2-Tetrachloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,1,2-Trichloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,1-Dichloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,1-Dichloroethene	< 2870	ug/Kg		3/20/2015 18:42
1,2-Dichlorobenzene	< 2870	ug/Kg		3/20/2015 18:42
1,2-Dichloroethane	< 2870	ug/Kg		3/20/2015 18:42
1,2-Dichloropropane	< 2870	ug/Kg		3/20/2015 18:42
1,3-Dichlorobenzene	< 2870	ug/Kg		3/20/2015 18:42
1,4-Dichlorobenzene	< 2870	ug/Kg		3/20/2015 18:42
Bromodichloromethane	< 2870	ug/Kg		3/20/2015 18:42
Bromoform	< 7190	ug/Kg		3/20/2015 18:42
Bromomethane	< 2870	ug/Kg		3/20/2015 18:42
Carbon Tetrachloride	< 2870	ug/Kg		3/20/2015 18:42
Chlorobenzene	< 2870	ug/Kg		3/20/2015 18:42
Chloroethane	< 2870	ug/Kg		3/20/2015 18:42
Chloroform	< 2870	ug/Kg		3/20/2015 18:42
Chloromethane	< 2870	ug/Kg		3/20/2015 18:42
cis-1,2-Dichloroethene	< 2870	ug/Kg		3/20/2015 18:42
cis-1,3-Dichloropropene	< 2870	ug/Kg		3/20/2015 18:42
Dibromochloromethane	< 2870	ug/Kg		3/20/2015 18:42
Methylene chloride	< 7190	ug/Kg		3/20/2015 18:42
Tetrachloroethene	36600	ug/Kg		3/20/2015 18:42
trans-1,2-Dichloroethene	< 2870	ug/Kg		3/20/2015 18:42
trans-1,3-Dichloropropene	< 2870	ug/Kg		3/20/2015 18:42
Trichloroethene	< 2870	ug/Kg		3/20/2015 18:42



3/20/2015 18:42

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-65 (16-17)

Trichlorofluoromethane

**Lab Sample ID:** 150827-19 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 2870

Vinyl chloride	< 2870	ug/Kg			3/20/2015	18:42
<u>Surrogate</u>	<u>Percent</u>	Percent Recovery		<b>Outliers</b>	<b>Date Analy</b>	<u>zed</u>
1,2-Dichloroethane-d4	1	03	81.1 - 124		3/20/2015	18:42
4-Bromofluorobenzene	9:	3.6	89.2 - 109		3/20/2015	18:42

ug/Kg

 4-Bromofluorobenzene
 93.6
 89.2 - 109
 3/20/2015
 18:42

 Pentafluorobenzene
 99.4
 92.2 - 109
 3/20/2015
 18:42

 Toluene-D8
 98.1
 92.4 - 109
 3/20/2015
 18:42

**Method Reference(s):** EPA 8260C EPA 5035

**Data File:** x21165.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-66 (12-13)

 Lab Sample ID:
 150827-20
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,1,1-Trichloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,1,2,2-Tetrachloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,1,2-Trichloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,1-Dichloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,1-Dichloroethene	< 8220	ug/Kg		3/20/2015 19:06
1,2-Dichlorobenzene	< 8220	ug/Kg		3/20/2015 19:06
1,2-Dichloroethane	< 8220	ug/Kg		3/20/2015 19:06
1,2-Dichloropropane	< 8220	ug/Kg		3/20/2015 19:06
1,3-Dichlorobenzene	< 8220	ug/Kg		3/20/2015 19:06
1,4-Dichlorobenzene	< 8220	ug/Kg		3/20/2015 19:06
Bromodichloromethane	< 8220	ug/Kg		3/20/2015 19:06
Bromoform	< 20500	ug/Kg		3/20/2015 19:06
Bromomethane	< 8220	ug/Kg		3/20/2015 19:06
Carbon Tetrachloride	< 8220	ug/Kg		3/20/2015 19:06
Chlorobenzene	< 8220	ug/Kg		3/20/2015 19:06
Chloroethane	< 8220	ug/Kg		3/20/2015 19:06
Chloroform	< 8220	ug/Kg		3/20/2015 19:06
Chloromethane	< 8220	ug/Kg		3/20/2015 19:06
cis-1,2-Dichloroethene	< 8220	ug/Kg		3/20/2015 19:06
cis-1,3-Dichloropropene	< 8220	ug/Kg		3/20/2015 19:06
Dibromochloromethane	< 8220	ug/Kg		3/20/2015 19:06
Methylene chloride	< 20500	ug/Kg		3/20/2015 19:06
Tetrachloroethene	58500	ug/Kg		3/20/2015 19:06
trans-1,2-Dichloroethene	< 8220	ug/Kg		3/20/2015 19:06
trans-1,3-Dichloropropene	< 8220	ug/Kg		3/20/2015 19:06
Trichloroethene	< 8220	ug/Kg		3/20/2015 19:06



3/20/2015 19:06

19:06

3/20/2015

Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-66 (12-13)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-20 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

< 8220

Vinyl chloride	< 8220	ug/Kg			3/20/2015	19:06
<u>Surrogate</u>	Percent Recovery		<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	10	06	81.1 - 124		3/20/2015	19:06
4-Bromofluorobenzene	94	ł.1	89.2 - 109		3/20/2015	19:06
Pentafluorobenzene	96	5.9	92.2 - 109		3/20/2015	19:06

98.1

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21166.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-67 (15-16)

 Lab Sample ID:
 150827-21
 Date Sampled:
 3/12/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,1,1-Trichloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,1,2,2-Tetrachloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,1,2-Trichloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,1-Dichloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,1-Dichloroethene	< 3520	ug/Kg		3/23/2015 00:29
1,2-Dichlorobenzene	< 3520	ug/Kg		3/23/2015 00:29
1,2-Dichloroethane	< 3520	ug/Kg		3/23/2015 00:29
1,2-Dichloropropane	< 3520	ug/Kg		3/23/2015 00:29
1,3-Dichlorobenzene	< 3520	ug/Kg		3/23/2015 00:29
1,4-Dichlorobenzene	< 3520	ug/Kg		3/23/2015 00:29
Bromodichloromethane	< 3520	ug/Kg		3/23/2015 00:29
Bromoform	< 8800	ug/Kg		3/23/2015 00:29
Bromomethane	< 3520	ug/Kg		3/23/2015 00:29
Carbon Tetrachloride	< 3520	ug/Kg		3/23/2015 00:29
Chlorobenzene	< 3520	ug/Kg		3/23/2015 00:29
Chloroethane	< 3520	ug/Kg		3/23/2015 00:29
Chloroform	< 3520	ug/Kg		3/23/2015 00:29
Chloromethane	< 3520	ug/Kg		3/23/2015 00:29
cis-1,2-Dichloroethene	< 3520	ug/Kg		3/23/2015 00:29
cis-1,3-Dichloropropene	< 3520	ug/Kg		3/23/2015 00:29
Dibromochloromethane	< 3520	ug/Kg		3/23/2015 00:29
Methylene chloride	< 8800	ug/Kg		3/23/2015 00:29
Tetrachloroethene	70800	ug/Kg		3/23/2015 00:29
trans-1,2-Dichloroethene	< 3520	ug/Kg		3/23/2015 00:29
trans-1,3-Dichloropropene	< 3520	ug/Kg		3/23/2015 00:29
Trichloroethene	< 3520	ug/Kg		3/23/2015 00:29



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-67 (15-16)

**Lab Sample ID:** 150827-21 **Date Sampled:** 3/12/2015

Matrix: Soil Date Received: 3/16/2015

1 2-Dichloroethane-d4		97 4	811 - 124		3/23/2015	00.29
<u>Surrogate</u>	<u>Percen</u>	Percent Recovery		<b>Outliers</b>	<b>Date Analy</b>	<u>zed</u>
Vinyl chloride	< 3520	ug/Kg			3/23/2015	00:29
Trichlorofluoromethane	< 3520	ug/Kg			3/23/2015	00:29

1,2-Dicinior octilanc-u+	)/. <del>T</del>	01.1 124	3/23/2013	00.27
4-Bromofluorobenzene	95.2	89.2 - 109	3/23/2015	00:29
Pentafluorobenzene	100	92.2 - 109	3/23/2015	00:29
Toluene-D8	98.2	92.4 - 109	3/23/2015	00:29

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21287.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-68 (7-8)

**Lab Sample ID:** 150827-22 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

#### **Volatile Organics**

A	<u>Analyte</u>	Result	<u>Units</u>	Qualifier	Date Analyz	zed
	1,1,1,2-Tetrachloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,1,1-Trichloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,1,2,2-Tetrachloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,1,2-Trichloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,1-Dichloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,1-Dichloroethene	< 4.49	ug/Kg		3/21/2015	02:20
	1,2-Dichlorobenzene	< 4.49	ug/Kg		3/21/2015	02:20
	1,2-Dichloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	1,2-Dichloropropane	< 4.49	ug/Kg		3/21/2015	02:20
	1,3-Dichlorobenzene	< 4.49	ug/Kg		3/21/2015	02:20
	1,4-Dichlorobenzene	< 4.49	ug/Kg		3/21/2015	02:20
	Bromodichloromethane	< 4.49	ug/Kg		3/21/2015	02:20
	Bromoform	< 11.2	ug/Kg		3/21/2015	02:20
	Bromomethane	< 4.49	ug/Kg		3/21/2015	02:20
	Carbon Tetrachloride	< 4.49	ug/Kg		3/21/2015	02:20
	Chlorobenzene	< 4.49	ug/Kg		3/21/2015	02:20
	Chloroethane	< 4.49	ug/Kg		3/21/2015	02:20
	Chloroform	< 4.49	ug/Kg		3/21/2015	02:20
	Chloromethane	< 4.49	ug/Kg		3/21/2015	02:20
	cis-1,2-Dichloroethene	< 4.49	ug/Kg		3/21/2015	02:20
	cis-1,3-Dichloropropene	< 4.49	ug/Kg		3/21/2015	02:20
	Dibromochloromethane	< 4.49	ug/Kg		3/21/2015	02:20
	Methylene chloride	< 11.2	ug/Kg		3/21/2015	02:20
	Tetrachloroethene	12.0	ug/Kg		3/21/2015	02:20
	trans-1,2-Dichloroethene	< 4.49	ug/Kg		3/21/2015	02:20
	trans-1,3-Dichloropropene	< 4.49	ug/Kg		3/21/2015	02:20
	Trichloroethene	< 4.49	ug/Kg		3/21/2015	02:20



3/21/2015 02:20

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-68 (7-8)

Trichlorofluoromethane

**Lab Sample ID:** 150827-22 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 4.49

Vinyl chloride	< 4.49 ug/Kg			3/21/2015	5 02:20
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4	108	81.1 - 124		3/21/2015	02:20
4-Bromofluorobenzene	96.7	89.2 - 109		3/21/2015	02:20
Pentafluorobenzene	96.9	92.2 - 109		3/21/2015	02:20
Toluene-D8	99.0	92.4 - 109		3/21/2015	02:20

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21184.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-68 (16-17)

 Lab Sample ID:
 150827-23
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,1,1-Trichloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,1,2,2-Tetrachloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,1,2-Trichloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,1-Dichloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,1-Dichloroethene	< 4.01	ug/Kg		3/21/2015 02:44
1,2-Dichlorobenzene	< 4.01	ug/Kg		3/21/2015 02:44
1,2-Dichloroethane	< 4.01	ug/Kg		3/21/2015 02:44
1,2-Dichloropropane	< 4.01	ug/Kg		3/21/2015 02:44
1,3-Dichlorobenzene	< 4.01	ug/Kg		3/21/2015 02:44
1,4-Dichlorobenzene	< 4.01	ug/Kg		3/21/2015 02:44
Bromodichloromethane	< 4.01	ug/Kg		3/21/2015 02:44
Bromoform	< 10.0	ug/Kg		3/21/2015 02:44
Bromomethane	< 4.01	ug/Kg		3/21/2015 02:44
Carbon Tetrachloride	< 4.01	ug/Kg		3/21/2015 02:44
Chlorobenzene	< 4.01	ug/Kg		3/21/2015 02:44
Chloroethane	< 4.01	ug/Kg		3/21/2015 02:44
Chloroform	< 4.01	ug/Kg		3/21/2015 02:44
Chloromethane	< 4.01	ug/Kg		3/21/2015 02:44
cis-1,2-Dichloroethene	< 4.01	ug/Kg		3/21/2015 02:44
cis-1,3-Dichloropropene	< 4.01	ug/Kg		3/21/2015 02:44
Dibromochloromethane	< 4.01	ug/Kg		3/21/2015 02:44
Methylene chloride	< 10.0	ug/Kg		3/21/2015 02:44
Tetrachloroethene	30.0	ug/Kg		3/21/2015 02:44
trans-1,2-Dichloroethene	< 4.01	ug/Kg		3/21/2015 02:44
trans-1,3-Dichloropropene	< 4.01	ug/Kg		3/21/2015 02:44
Trichloroethene	< 4.01	ug/Kg		3/21/2015 02:44



3/21/2015 02:44

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-68 (16-17)

Trichlorofluoromethane

**Lab Sample ID:** 150827-23 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 4.01

Vinyl chloride	< 4.01 ug/Kg			3/21/2015	02:44
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	108	81.1 - 124		3/21/2015	02:44
4-Bromofluorobenzene	89.5	89.2 - 109		3/21/2015	02:44
Pentafluorobenzene	92.6	92.2 - 109		3/21/2015	02:44
Toluene-D8	95.6	92.4 - 109		3/21/2015	02:44

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21185.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-69 (12-13)

 Lab Sample ID:
 150827-24
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,1,1-Trichloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,1,2,2-Tetrachloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,1,2-Trichloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,1-Dichloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,1-Dichloroethene	< 4.12	ug/Kg		3/21/2015 03:08
1,2-Dichlorobenzene	< 4.12	ug/Kg		3/21/2015 03:08
1,2-Dichloroethane	< 4.12	ug/Kg		3/21/2015 03:08
1,2-Dichloropropane	< 4.12	ug/Kg		3/21/2015 03:08
1,3-Dichlorobenzene	< 4.12	ug/Kg		3/21/2015 03:08
1,4-Dichlorobenzene	< 4.12	ug/Kg		3/21/2015 03:08
Bromodichloromethane	< 4.12	ug/Kg		3/21/2015 03:08
Bromoform	< 10.3	ug/Kg		3/21/2015 03:08
Bromomethane	< 4.12	ug/Kg		3/21/2015 03:08
Carbon Tetrachloride	< 4.12	ug/Kg		3/21/2015 03:08
Chlorobenzene	< 4.12	ug/Kg		3/21/2015 03:08
Chloroethane	< 4.12	ug/Kg		3/21/2015 03:08
Chloroform	< 4.12	ug/Kg		3/21/2015 03:08
Chloromethane	< 4.12	ug/Kg		3/21/2015 03:08
cis-1,2-Dichloroethene	< 4.12	ug/Kg		3/21/2015 03:08
cis-1,3-Dichloropropene	< 4.12	ug/Kg		3/21/2015 03:08
Dibromochloromethane	< 4.12	ug/Kg		3/21/2015 03:08
Methylene chloride	< 10.3	ug/Kg		3/21/2015 03:08
Tetrachloroethene	3.11	ug/Kg	J	3/21/2015 03:08
trans-1,2-Dichloroethene	< 4.12	ug/Kg		3/21/2015 03:08
trans-1,3-Dichloropropene	< 4.12	ug/Kg		3/21/2015 03:08
Trichloroethene	< 4.12	ug/Kg		3/21/2015 03:08



3/21/2015 03:08

03:08

3/21/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-69 (12-13)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-24 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 4.12

Vinyl chloride	< 4.12 ug/Kg			3/21/2015	03:08
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	104	81.1 - 124		3/21/2015	03:08
4-Bromofluorobenzene	96.3	89.2 - 109		3/21/2015	03:08
Pentafluorobenzene	98.4	92.2 - 109		3/21/2015	03:08

99.4

ug/Kg

Method Reference(s): EPA 8260C EPA 5035

Data File: x21186.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-70 (6-7)

 Lab Sample ID:
 150827-25
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,1,1-Trichloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,1,2,2-Tetrachloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,1,2-Trichloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,1-Dichloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,1-Dichloroethene	< 4.29	ug/Kg		3/21/2015 03:33
1,2-Dichlorobenzene	< 4.29	ug/Kg		3/21/2015 03:33
1,2-Dichloroethane	< 4.29	ug/Kg		3/21/2015 03:33
1,2-Dichloropropane	< 4.29	ug/Kg		3/21/2015 03:33
1,3-Dichlorobenzene	< 4.29	ug/Kg		3/21/2015 03:33
1,4-Dichlorobenzene	< 4.29	ug/Kg		3/21/2015 03:33
Bromodichloromethane	< 4.29	ug/Kg		3/21/2015 03:33
Bromoform	< 10.7	ug/Kg		3/21/2015 03:33
Bromomethane	< 4.29	ug/Kg		3/21/2015 03:33
Carbon Tetrachloride	< 4.29	ug/Kg		3/21/2015 03:33
Chlorobenzene	< 4.29	ug/Kg		3/21/2015 03:33
Chloroethane	< 4.29	ug/Kg		3/21/2015 03:33
Chloroform	< 4.29	ug/Kg		3/21/2015 03:33
Chloromethane	< 4.29	ug/Kg		3/21/2015 03:33
cis-1,2-Dichloroethene	< 4.29	ug/Kg		3/21/2015 03:33
cis-1,3-Dichloropropene	< 4.29	ug/Kg		3/21/2015 03:33
Dibromochloromethane	< 4.29	ug/Kg		3/21/2015 03:33
Methylene chloride	< 10.7	ug/Kg		3/21/2015 03:33
Tetrachloroethene	54.7	ug/Kg		3/21/2015 03:33
trans-1,2-Dichloroethene	< 4.29	ug/Kg		3/21/2015 03:33
trans-1,3-Dichloropropene	< 4.29	ug/Kg		3/21/2015 03:33
Trichloroethene	< 4.29	ug/Kg		3/21/2015 03:33



3/21/2015 03:33

03:33

3/21/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-70 (6-7)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-25 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 4.29

Vinyl chloride	< 4.29	ug/Kg			3/21/2015	03:33
<u>Surrogate</u>	<u>Percen</u>	t Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	-	108	81.1 - 124		3/21/2015	03:33
4-Bromofluorobenzene	Ģ	95.0	89.2 - 109		3/21/2015	03:33
Pentafluorobenzene	ģ	95.5	92.2 - 109		3/21/2015	03:33

98.3

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21187.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** Field Duplicate 02

Lab Sample ID:150827-26Date Sampled:3/13/2015Matrix:SoilDate Received:3/16/2015

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,1,1-Trichloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,1,2,2-Tetrachloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,1,2-Trichloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,1-Dichloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,1-Dichloroethene	< 8.83	ug/Kg		3/21/2015 03:57
1,2-Dichlorobenzene	< 8.83	ug/Kg		3/21/2015 03:57
1,2-Dichloroethane	< 8.83	ug/Kg		3/21/2015 03:57
1,2-Dichloropropane	< 8.83	ug/Kg		3/21/2015 03:57
1,3-Dichlorobenzene	< 8.83	ug/Kg		3/21/2015 03:57
1,4-Dichlorobenzene	< 8.83	ug/Kg		3/21/2015 03:57
Bromodichloromethane	< 8.83	ug/Kg		3/21/2015 03:57
Bromoform	< 22.1	ug/Kg		3/21/2015 03:57
Bromomethane	< 8.83	ug/Kg		3/21/2015 03:57
Carbon Tetrachloride	< 8.83	ug/Kg		3/21/2015 03:57
Chlorobenzene	< 8.83	ug/Kg		3/21/2015 03:57
Chloroethane	< 8.83	ug/Kg		3/21/2015 03:57
Chloroform	< 8.83	ug/Kg		3/21/2015 03:57
Chloromethane	< 8.83	ug/Kg		3/21/2015 03:57
cis-1,2-Dichloroethene	< 8.83	ug/Kg		3/21/2015 03:57
cis-1,3-Dichloropropene	< 8.83	ug/Kg		3/21/2015 03:57
Dibromochloromethane	< 8.83	ug/Kg		3/21/2015 03:57
Methylene chloride	< 22.1	ug/Kg		3/21/2015 03:57
Tetrachloroethene	378	ug/Kg		3/21/2015 03:57
trans-1,2-Dichloroethene	< 8.83	ug/Kg		3/21/2015 03:57
trans-1,3-Dichloropropene	< 8.83	ug/Kg		3/21/2015 03:57
Trichloroethene	< 8.83	ug/Kg		3/21/2015 03:57



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** Field Duplicate 02

 Lab Sample ID:
 150827-26
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

 Trichlorofluoromethane
 < 8.83</th>
 ug/Kg
 3/21/2015
 03:57

 Vinyl chloride
 < 8.83</td>
 ug/Kg
 3/21/2015
 03:57

<u>Surrogate</u>	Percent Recovery Limits		<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	105	81.1 - 124		3/21/2015	03:57
4-Bromofluorobenzene	95.0	89.2 - 109		3/21/2015	03:57
Pentafluorobenzene	94.5	92.2 - 109		3/21/2015	03:57
Toluene-D8	96.1	92.4 - 109		3/21/2015	03:57

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21188.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-71 (3-4)

 Lab Sample ID:
 150827-27
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,1,1-Trichloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,1,2,2-Tetrachloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,1,2-Trichloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,1-Dichloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,1-Dichloroethene	< 4.53	ug/Kg		3/21/2015 04:22
1,2-Dichlorobenzene	< 4.53	ug/Kg		3/21/2015 04:22
1,2-Dichloroethane	< 4.53	ug/Kg		3/21/2015 04:22
1,2-Dichloropropane	< 4.53	ug/Kg		3/21/2015 04:22
1,3-Dichlorobenzene	< 4.53	ug/Kg		3/21/2015 04:22
1,4-Dichlorobenzene	< 4.53	ug/Kg		3/21/2015 04:22
Bromodichloromethane	< 4.53	ug/Kg		3/21/2015 04:22
Bromoform	< 11.3	ug/Kg		3/21/2015 04:22
Bromomethane	< 4.53	ug/Kg		3/21/2015 04:22
Carbon Tetrachloride	< 4.53	ug/Kg		3/21/2015 04:22
Chlorobenzene	< 4.53	ug/Kg		3/21/2015 04:22
Chloroethane	< 4.53	ug/Kg		3/21/2015 04:22
Chloroform	< 4.53	ug/Kg		3/21/2015 04:22
Chloromethane	< 4.53	ug/Kg		3/21/2015 04:22
cis-1,2-Dichloroethene	< 4.53	ug/Kg		3/21/2015 04:22
cis-1,3-Dichloropropene	< 4.53	ug/Kg		3/21/2015 04:22
Dibromochloromethane	< 4.53	ug/Kg		3/21/2015 04:22
Methylene chloride	< 11.3	ug/Kg		3/21/2015 04:22
Tetrachloroethene	21.4	ug/Kg		3/21/2015 04:22
trans-1,2-Dichloroethene	< 4.53	ug/Kg		3/21/2015 04:22
trans-1,3-Dichloropropene	< 4.53	ug/Kg		3/21/2015 04:22
Trichloroethene	< 4.53	ug/Kg		3/21/2015 04:22



3/21/2015 04:22

04:22

3/21/2015

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-71 (3-4)

Trichlorofluoromethane

Toluene-D8

**Lab Sample ID:** 150827-27 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 4.53

Vinyl chloride	< 4.53	ug/Kg		3/21/2015	5 04:22
<u>Surrogate</u>	Percent Re	ecovery <u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	vzed
1,2-Dichloroethane-d4	107	81.1 - 124		3/21/2015	04:22
4-Bromofluorobenzene	91.9	89.2 - 109		3/21/2015	04:22
Pentafluorobenzene	97.0	92.2 - 109		3/21/2015	04:22

96.7

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21189.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-72 (9-10)

 Lab Sample ID:
 150827-28
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,1,1-Trichloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,1,2,2-Tetrachloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,1,2-Trichloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,1-Dichloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,1-Dichloroethene	< 18.6	ug/Kg		3/21/2015 04:46
1,2-Dichlorobenzene	< 18.6	ug/Kg		3/21/2015 04:46
1,2-Dichloroethane	< 18.6	ug/Kg		3/21/2015 04:46
1,2-Dichloropropane	< 18.6	ug/Kg		3/21/2015 04:46
1,3-Dichlorobenzene	< 18.6	ug/Kg		3/21/2015 04:46
1,4-Dichlorobenzene	< 18.6	ug/Kg		3/21/2015 04:46
Bromodichloromethane	< 18.6	ug/Kg		3/21/2015 04:46
Bromoform	< 46.5	ug/Kg		3/21/2015 04:46
Bromomethane	< 18.6	ug/Kg		3/21/2015 04:46
Carbon Tetrachloride	< 18.6	ug/Kg		3/21/2015 04:46
Chlorobenzene	< 18.6	ug/Kg		3/21/2015 04:46
Chloroethane	< 18.6	ug/Kg		3/21/2015 04:46
Chloroform	< 18.6	ug/Kg		3/21/2015 04:46
Chloromethane	< 18.6	ug/Kg		3/21/2015 04:46
cis-1,2-Dichloroethene	< 18.6	ug/Kg		3/21/2015 04:46
cis-1,3-Dichloropropene	< 18.6	ug/Kg		3/21/2015 04:46
Dibromochloromethane	< 18.6	ug/Kg		3/21/2015 04:46
Methylene chloride	< 46.5	ug/Kg		3/21/2015 04:46
Tetrachloroethene	122	ug/Kg		3/21/2015 04:46
trans-1,2-Dichloroethene	< 18.6	ug/Kg		3/21/2015 04:46
trans-1,3-Dichloropropene	< 18.6	ug/Kg		3/21/2015 04:46
Trichloroethene	< 18.6	ug/Kg		3/21/2015 04:46



**Client: GZA Geo Environmental of New York** 

**Project Reference:** Northtown Plaza

Sample Identifier: SP-72 (9-10)

Lab Sample ID: 150827-28 **Date Sampled:** 3/13/2015

**Matrix: Date Received:** 3/16/2015 Soil

Trichlorofluoromethane	< 18.6	ug/Kg			3/21/2015	04:46
Vinyl chloride	< 18.6	ug/Kg			3/21/2015	04:46
<u>Surrogate</u>	<u>Percen</u>	<u>it Recovery</u>	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4		117	81.1 - 124		3/21/2015	04:46
4-Bromofluorobenzene		93.3	89.2 - 109		3/21/2015	04:46
Pentafluorobenzene		95.9	92.2 - 109		3/21/2015	04:46
Toluene-D8	1	98.1	92.4 - 109		3/21/2015	04:46

Method Reference(s): EPA 8260C EPA 5035

Data File: x21190.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-73 (6-7)

 Lab Sample ID:
 150827-29
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,1,1-Trichloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,1,2,2-Tetrachloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,1,2-Trichloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,1-Dichloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,1-Dichloroethene	< 3.86	ug/Kg		3/21/2015 05:10
1,2-Dichlorobenzene	< 3.86	ug/Kg		3/21/2015 05:10
1,2-Dichloroethane	< 3.86	ug/Kg		3/21/2015 05:10
1,2-Dichloropropane	< 3.86	ug/Kg		3/21/2015 05:10
1,3-Dichlorobenzene	< 3.86	ug/Kg		3/21/2015 05:10
1,4-Dichlorobenzene	< 3.86	ug/Kg		3/21/2015 05:10
Bromodichloromethane	< 3.86	ug/Kg		3/21/2015 05:10
Bromoform	< 9.66	ug/Kg		3/21/2015 05:10
Bromomethane	< 3.86	ug/Kg		3/21/2015 05:10
Carbon Tetrachloride	< 3.86	ug/Kg		3/21/2015 05:10
Chlorobenzene	< 3.86	ug/Kg		3/21/2015 05:10
Chloroethane	< 3.86	ug/Kg		3/21/2015 05:10
Chloroform	< 3.86	ug/Kg		3/21/2015 05:10
Chloromethane	< 3.86	ug/Kg		3/21/2015 05:10
cis-1,2-Dichloroethene	< 3.86	ug/Kg		3/21/2015 05:10
cis-1,3-Dichloropropene	< 3.86	ug/Kg		3/21/2015 05:10
Dibromochloromethane	< 3.86	ug/Kg		3/21/2015 05:10
Methylene chloride	< 9.66	ug/Kg		3/21/2015 05:10
Tetrachloroethene	12.9	ug/Kg		3/21/2015 05:10
trans-1,2-Dichloroethene	< 3.86	ug/Kg		3/21/2015 05:10
trans-1,3-Dichloropropene	< 3.86	ug/Kg		3/21/2015 05:10
Trichloroethene	< 3.86	ug/Kg		3/21/2015 05:10



3/21/2015 05:10

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-73 (6-7)

Trichlorofluoromethane

**Lab Sample ID:** 150827-29 **Date Sampled:** 3/13/2015

Matrix: Soil Date Received: 3/16/2015

< 3.86

Vinyl chloride	< 3.86	ug/Kg			3/21/2015	05:10
<u>Surrogate</u>	<u>Percen</u>	t Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4		109	81.1 - 124		3/21/2015	05:10
4-Bromofluorobenzene	9	91.0	89.2 - 109		3/21/2015	05:10
Pentafluorobenzene	9	91.6	92.2 - 109	*	3/21/2015	05:10
Toluene-D8	•	96.9	92.4 - 109		3/21/2015	05:10

ug/Kg

**Method Reference(s):** EPA 8260C EPA 5035

Data File: x21191.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** SP-74 (5-6)

 Lab Sample ID:
 150827-30
 Date Sampled:
 3/13/2015

 Matrix:
 Soil
 Date Received:
 3/16/2015

#### **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<b>Date Analyzed</b>
1,1,1,2-Tetrachloroethane	< 4.36	ug/Kg		3/21/2015 05:35
1,1,1-Trichloroethane	< 4.36	ug/Kg	M	3/21/2015 05:35
1,1,2,2-Tetrachloroethane	< 4.36	ug/Kg	M	3/21/2015 05:35
1,1,2-Trichloroethane	< 4.36	ug/Kg	M	3/21/2015 05:35
1,1-Dichloroethane	< 4.36	ug/Kg	M	3/21/2015 05:35
1,1-Dichloroethene	< 4.36	ug/Kg	M	3/21/2015 05:35
1,2-Dichlorobenzene	< 4.36	ug/Kg	M	3/21/2015 05:35
1,2-Dichloroethane	< 4.36	ug/Kg		3/21/2015 05:35
1,2-Dichloropropane	< 4.36	ug/Kg	M	3/21/2015 05:35
1,3-Dichlorobenzene	< 4.36	ug/Kg	M	3/21/2015 05:35
1,4-Dichlorobenzene	< 4.36	ug/Kg	M	3/21/2015 05:35
Bromodichloromethane	< 4.36	ug/Kg	M	3/21/2015 05:35
Bromoform	< 10.9	ug/Kg		3/21/2015 05:35
Bromomethane	< 4.36	ug/Kg	M	3/21/2015 05:35
Carbon Tetrachloride	< 4.36	ug/Kg		3/21/2015 05:35
Chlorobenzene	< 4.36	ug/Kg	M	3/21/2015 05:35
Chloroethane	< 4.36	ug/Kg	M	3/21/2015 05:35
Chloroform	< 4.36	ug/Kg	M	3/21/2015 05:35
Chloromethane	< 4.36	ug/Kg	M	3/21/2015 05:35
cis-1,2-Dichloroethene	< 4.36	ug/Kg		3/21/2015 05:35
cis-1,3-Dichloropropene	< 4.36	ug/Kg	M	3/21/2015 05:35
Dibromochloromethane	< 4.36	ug/Kg	M	3/21/2015 05:35
Methylene chloride	< 10.9	ug/Kg		3/21/2015 05:35
Tetrachloroethene	10.2	ug/Kg	M	3/21/2015 05:35
trans-1,2-Dichloroethene	< 4.36	ug/Kg	M	3/21/2015 05:35
trans-1,3-Dichloropropene	< 4.36	ug/Kg		3/21/2015 05:35
Trichloroethene	< 4.36	ug/Kg	M	3/21/2015 05:35



3/13/2015

3/21/2015

05:35

**Date Sampled:** 

Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

Sample Identifier: SP-74 (5-6)
Lab Sample ID: 150827-30

Toluene-D8

Matrix: Soil Date Received: 3/16/2015

Trichlorofluoromethane < 4.36 ug/Kg Μ 3/21/2015 05:35 Vinyl chloride M < 4.36 ug/Kg 3/21/2015 05:35 **Surrogate** Percent Recovery Limits **Outliers Date Analyzed** 1,2-Dichloroethane-d4 109 81.1 - 124 3/21/2015 05:35 91.7 89.2 - 109 4-Bromofluorobenzene 3/21/2015 05:35 Pentafluorobenzene 94.4 92.2 - 109 3/21/2015 05:35

98.1

Method Reference(s): EPA 8260C EPA 5035 Data File: x21192.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

92.4 - 109



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza

**Sample Identifier:** Trip Blank 31315

Lab Sample ID:150827-31Date Sampled:3/13/2015Matrix:WaterDate Received:3/16/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1,2-Tetrachloroethane	< 2.00	ug/L		3/19/2015 20:37
1,1,1-Trichloroethane	< 2.00	ug/L		3/19/2015 20:37
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/19/2015 20:37
1,1,2-Trichloroethane	< 2.00	ug/L		3/19/2015 20:37
1,1-Dichloroethane	< 2.00	ug/L		3/19/2015 20:37
1,1-Dichloroethene	< 2.00	ug/L		3/19/2015 20:37
1,2-Dichlorobenzene	< 2.00	ug/L		3/19/2015 20:37
1,2-Dichloroethane	< 2.00	ug/L		3/19/2015 20:37
1,2-Dichloropropane	< 2.00	ug/L		3/19/2015 20:37
1,3-Dichlorobenzene	< 2.00	ug/L		3/19/2015 20:37
1,4-Dichlorobenzene	< 2.00	ug/L		3/19/2015 20:37
Bromodichloromethane	< 2.00	ug/L		3/19/2015 20:37
Bromoform	< 5.00	ug/L		3/19/2015 20:37
Bromomethane	< 2.00	ug/L		3/19/2015 20:37
Carbon Tetrachloride	< 2.00	ug/L		3/19/2015 20:37
Chlorobenzene	< 2.00	ug/L		3/19/2015 20:37
Chloroethane	< 2.00	ug/L		3/19/2015 20:37
Chloroform	< 2.00	ug/L		3/19/2015 20:37
Chloromethane	< 2.00	ug/L		3/19/2015 20:37
cis-1,2-Dichloroethene	< 2.00	ug/L		3/19/2015 20:37
cis-1,3-Dichloropropene	< 2.00	ug/L		3/19/2015 20:37
Dibromochloromethane	< 2.00	ug/L		3/19/2015 20:37
Methylene chloride	< 5.00	ug/L		3/19/2015 20:37
Tetrachloroethene	< 2.00	ug/L		3/19/2015 20:37
trans-1,2-Dichloroethene	< 2.00	ug/L		3/19/2015 20:37
trans-1,3-Dichloropropene	< 2.00	ug/L		3/19/2015 20:37
Trichloroethene	< 2.00	ug/L		3/19/2015 20:37



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza

**Sample Identifier:** Trip Blank 31315

**Lab Sample ID:** 150827-31 **Date Sampled:** 3/13/2015

Matrix: Water Date Received: 3/16/2015

 Trichlorofluoromethane
 < 2.00</td>
 ug/L
 3/19/2015
 20:37

 Vinyl chloride
 < 2.00</td>
 ug/L
 3/19/2015
 20:37

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	vzed
1,2-Dichloroethane-d4	102	80.4 - 116		3/19/2015	20:37
4-Bromofluorobenzene	92.8	87 - 109		3/19/2015	20:37
Pentafluorobenzene	97.1	92.8 - 109		3/19/2015	20:37
Toluene-D8	96.3	92.1 - 107		3/19/2015	20:37

**Method Reference(s):** EPA 8260C

EPA 5030

Data File: x21106.D



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted OC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
"(1)" = Indicates data from primary column used for QC calculation.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written. between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.





9 U 1510 X SP-581	1400 X SP- 1400 X	DATE COLLECTED TIME COLLECTED ON A A B I I B E E E E E E E E E E E E E E E E	NORTH-TOWN PINZA Matr	TAKADIGUTA CLIENT.  ADDRESS.  GITY.  PHONE:  PHONE:  TAKADIGUTA CLIENT.	
-58 (11-12) -59 (13-14)	Sb-24(12-13) Sb-22(10-11) Sb-24 (12-19) Sb-24 (12-19) Sb-23 (2-18)	SAMPLE IDENTIFIER	ろめい)  es:  es:  Aqueous Liquid  Non-Aqueous Liquid	GZA VOSTOSTOSTOSTOSTOSTOSTOSTOSTOSTOSTOSTOSTO	REPORT TO:
	<	X-77-> E	WA - Water WG - Groundwater	ADDRESS:    U	
	XXXXX	X 8260	DW - Drinking Water WW - Wastewater REQUESTED ANALYSIS	SIAJE:	INVOICE TO:
		Chresio	St - Soil	ZIP:	
		REMARKS	SD-Solid WP-Wipe OL-Oil PT-Paint CK-Caulk AR-Air	LAB PROJECT ID  150837  Quotation #:	
- 0 C		PARADIGM LAB SAMPLE NUMBER	OL - Oil AR - Air		

	3°Cical 3/16/15 10:21					
`	Received @ Lab By Date/Time	Other EDD please indicate:		Other please indicate:		Other please indicate:
		]	]	,		Rush 1 day
P.I.F.	Received By Date/Time			Category B		Rush 2 day
Г	Relinguished By Date/Time	NYSDEC EDD		Category A		Rush 3 day
lotal Cost.	Sampled By Date Time 3/2/15/6/5	Basic EDD		Batch QC		Standard 5 day
7	- Bows fully soll	ees may apply.	Availability contingent upon lab approval; additional fees may apply.	ent upon lab app	lability conting	Avai
1		lements	Report Supplements		Turnaround Time	Turnarou

Custed J Souls Infact, Signed, & Oated of 3/16/15





CLEANT:  ADDRESS:  ADDRESS:  PHONE:  PHONE:  PHONE:  PHONE:  AC - Appleous Liquid AC - Appleo		יים דמכמחם:	NVOICE TO:		
PROJECT REFERENCE  THE TOTAL COLORS IN THE TOT		Z		LAB PROJECT ID	
PROJECT REFERENCE    Company A   Company A			ADDRESS:		
PROJECT REFERENCE			STATE:	Quotation #:	
PROJECT REFERENCE    Main's Codes:   Main's Co		14.04.704			
Marth Codes:  Ma	PROJECT REFERENCE		ATTN:		
		Matrix Codes:  AQ - Aqueous Liquid  NQ - Non-Aqueous Liquid	DW - Drinking Water WW - Wastewater	WP - Wipe CK - Caulk	OL - Oil AR - Air
1330   SP - 60 (7-3)   SAMPLE DESTITION   SAMPLE			REQUESTED ANALYSIS		
Intercollected   Intercollected   P	<b>3</b> 00	)	<b>≤</b> ⊂ z		
	TIME COLLECTED		тО хітю vi m z – > -		PAKADIGM LAB SAMPLE NUMBER
	3/2/8	58-60 (5	X		
1070   X   SP-61 (19-70)   J   J   X		t) 10 '35	*		
135   X   SP-62 ((2-17)   J   J   X   X   X   SP-63 (8-9)   J   J   X   J		SP-61 (18	*		
12.15   X   5P - 63 (8 - 9)   J   J   X   X   X   X   X   X   X   X		57-67/6-	*		1
133b		Field Duphwite	<		
1330   X   SP - 64 (21-22)   J   X   X   X   X   X   X   X   X   X		57-63 (8	F		- 6
1335   & SP - 64 (21-22)   J J X		SP. 64 (8-	-		
Turnaround Time Report Supplements  Availability contingent upon lab approval; additional fees may apply.  Availability contingent upon lab approval; additional fees may apply.  Availability contingent upon lab approval; additional fees may apply.  Samplied By  Category B  Availability contingent upon lab approval; additional fees may apply.  Samplied By  Category B  Availability contingent upon lab approval; additional fees may apply.  Samplied By  Category B  Availability contingent upon lab approval; additional fees may apply.  Samplied By  Category B  Date/Time  PI.F.  PI.F.		SP - 64 (	<u> </u>		
Turnaround Time Report Supplements  Availability contingent upon lab approval; additional fees may apply.  Indard 5 day Sh 3 day Category A Category B Cat		SP-65 (1	ب		_
Availability contingent upon lab approval; additional fees may apply.  Availability contingent upon lab approval; additional fees may apply.  Batch QC  Category A  Category B  Category B		SP-66 (12-		A Commence.	رو ت
Availability contingent upon lab approval; additional fees may apply.    Availability contingent upon lab approval; additional fees may apply.   Samplied By   Date/Time	Turnaround Time	Report Supplements	J // 2/ 2/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/		
day  Batch QC  Category A  Category B  Cat	Availability contingent upon	lab approval; additional fees may apply.	C CACALIBRA	Total Cost	
Category A  Category B  Catego	À			iotal cost.	
Category B Received By Date/Time			By Date/Time	1 C	
		оу В	Date/Time	P.I.F.	
	Rush 1 day				

Other please indicate:

Other please indicate:

Other EDD please indicate:

Received @ Lab By



	Cake	S	veceived @ rap by		please indicate:		Other please indicate:	Pie	Other please indicate:
	A Time				1	]	-		Rush 1 day
P.I.F.	Date/Time	Da	Received By				Category B		Rush 2 day
\	Date/Time	Da	Relinquished By		NYSDEC EDD		Category A	<u>ဂ</u>	Rush 3 day
Europe CCC.			Salidididid		Basic EDD		Batch QC	Be	Standard 5 day
2Total Cost:	いとうだった			<i>'</i> -	fees may apply	oval; additional	upon lab appr	Availability contingent upon lab approval; additional fees may apply.	Availab
)			1	3	plements	Report Supplements		d Time	Turnaround Time
	,		Married St.						
				らし来		50,79	\ \hat{\chi}		10
					0	5000	X		9
				y			X	S Barre	8
						50.7/	X		7
				3		rield.	X	- Enthelistophisto	6
				27007	(6-7)	50.70	X	1128	5
				13	12	12.00	M	3	4
ą				J		ンマンクの	K	09.35	3
シミク				Ž,	77-6	SPS	X	22/20	23/12/15
HATEL TAS	Chlor.	X	8	5	(18-	SP-67	X	620	13 12 15
REMARKS		8260	× − ス ¬ > ≥ ≤	<b>VTIFIER</b>	SAMPLE IDENTIFIER		m ⊣ − 0 0 0 ≧ 0 0 0	TIME COLLECTED	DATE COLLECTED 1
	YSIS	REQUESTED ANALYSIS							
Solid WP - Wipe Paint CK - Caulk	SO - Soil SD - Solid SL - Sludge PT - Paint	<b>DW</b> - Drinking Water <b>WW</b> - Wastewater	WA - Water WG - Groundwater	uid	Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	Matrix Codes: AQ - Aqui NQ - Non			
			ATTN:			ATTN:	CE	PROJECT REFERENCE	PROJE
	Email:					PHONE		The state of the s	11.0
Quotation #:	ZIP: Quo	STATE:	19.	STATE:	4	CITY:			
	3	MIN S	ADDRESS:			ADDRESS:	111		
LAB PROJECT ID	<b>(</b>	INVOICE IU:	CLIENT:	REPORT TO:	) REF	CLIENT:	pulition.	PARADIGM	PAZ
	5	12.50 T					100		





Other please indicate:	Rush 1 day	Rush 2 day	Rush 3 day	Standard 5 day	Availa	Turnaround Time	10	9	00	7	6	5	4	ယ	2	13-13-15	DATE COLLECTED			PROJE				TAG
				A	ability contingen	nd Time								Section Continues and Continues of the C		Messac	TIME COLLECTED			PROJECT REFERENCE	and the state of t			PARADIGM
Other please indicate:		Category B	Category A	Batch QC	t upon lab a									And the second processing the second		\(\frac{1}{2}\)	m ⊣ − w O T ≊ O O			NCE				
Other EDD please indicate:			NYSDEC EDD	Basic EDD	Availability contingent upon lab approval; additional fees may apply.	Report Supplements						stone, stone	The control of the co	The state of the s		TRIP BIMU	SAMPLE IDENTIFIER		Matrix Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	ATTN:	PHONE:		TANK STANK	CLIENT: REPORT TO:
Received @ Lab By		Received By	Relinquished By		SamplerBy						100	A CONTRACTOR STATEMENT OF THE STATEMENT	The second secon		The state of the s	13/3/5 WA	E7 Χ − 72 ↑ ≥ 8 ω π □ Ο Ο Ο		WA - Water WG - Groundwater	ZUZ Z		ZIP:		
Ву	disciplental disciplent			State of the state	080	7					Character Transport (Street Street St	\$ 850 (80) (100) (				X	то япшеси мяте->чеоп 8266	REQUESTED ANALYSIS	DW - Drinking Water wW - Wastewater	ATTN:	PHONE:	сіту:	ADDRESS:	CLIENT: INVC
Date/Time	:	Date/Time	baje/Tithe	5	Date/Time				N/SSP	The second secon	The state of the s				A	Ch,		ANALYSIS	er SO - Soil SL - Sludge		COURT	STATE: ZIP:		VOICE TO:
		P.I.F.		615	Total Cost:	ì	The state of the s	The state of the s	Production and the second of t				A COUNTY OF THE PROPERTY OF TH	Service Control of the Control of th		bline tex 12	REMARKS		SD - Solid WP - Wipe PT - Paint CK - Caulk		Email: bada @ 624 cmg	Quotation #:		LAB PROJECT ID
							Marie Cara Cara Cara Cara Cara Cara Cara Car									\\ \( \)	PARADIGM LAB SAMPLE NUMBER		OL - Oil AR - Air		17/2 CX C			TID

5 of 5



## Chain of Custody Supplement

Client:		completed by:	
Lab Project ID:	150827	Date:	3/16/15
	Sample Conditio Per NELAC/ELAP 210	on Requirements 0/241/242/243/244	
NE Condition	ELAC compliance with the sample o Yes	condition requirements upon No	receipt N/A
Container Type  Comments	GI,G2	5035	
Transferred to method- compliant container			Soil
Headspace (<1 mL) Comments	718		
Preservation Comments	1B		Soil
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time  Comments			
Temperature Comments	3°C rced		
Sufficient Sample Quantity  Comments			
Comments			

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-3-031015

Lab Order:C1503039Tag Number:189,298Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-001A **Matrix:** AIR

Analyses	Result	**Limit Qua	l Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: RJP
1,1,1-Trichloroethane	3.2	0.82	ug/m3	1	3/17/2015 10:12:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 10:12:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 10:12:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 10:12:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:12:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 10:12:00 PM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/17/2015 10:12:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:12:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/17/2015 10:12:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:12:00 PM
Trichloroethene	1.2	0.81	ug/m3	1	3/17/2015 10:12:00 PM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/17/2015 10:12:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

 $JN \quad \ \, Non-routine\ analyte.\ Quantitation\ estimated.$ 

S Spike Recovery outside accepted recovery limits

Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-3-031015

Lab Order:C1503039Tag Number:158,265Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-002A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 3:03:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 3:03:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 3:03:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 3:03:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 3:03:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 3:03:00 PM
Carbon tetrachloride	0.69	0.25	ug/m3	1	3/17/2015 3:03:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 3:03:00 PM
Tetrachloroethylene	1.2	1.0	ug/m3	1	3/17/2015 3:03:00 PM
trans-1,2-Dichloroethene	5.4	0.59	ug/m3	1	3/17/2015 3:03:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 3:03:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 3:03:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-1-031015

Lab Order:C1503039Tag Number: 85,1165Project:Northtown PlazaCollection Date: 3/10/2015

Project: Northtown Plaza Collection Date: 3/10/2
Lab ID: C1503039-003A Matrix: AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 10:50:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 10:50:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 10:50:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 10:50:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:50:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 10:50:00 PM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/17/2015 10:50:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:50:00 PM
Tetrachloroethylene	2.0	1.0	ug/m3	1	3/17/2015 10:50:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 10:50:00 PM
Trichloroethene	0.97	0.81	ug/m3	1	3/17/2015 10:50:00 PM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/17/2015 10:50:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-1-031015

Lab Order:C1503039Tag Number:1187,279Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-004A **Matrix:** AIR

Analyses	Result	**Limit Qua	l Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 3:40:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 3:40:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 3:40:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 3:40:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 3:40:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 3:40:00 PM
Carbon tetrachloride	< 0.25	0.25	ug/m3	1	3/17/2015 3:40:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 3:40:00 PM
Tetrachloroethylene	1.8	1.0	ug/m3	1	3/17/2015 3:40:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 3:40:00 PM
Trichloroethene	0.43	0.21	ug/m3	1	3/17/2015 3:40:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 3:40:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-2-031015

Lab Order:C1503039Tag Number:171,267Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-005A **Matrix:** AIR

Analyses	Result	**Limit Qu	ual Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	0.71	0.82	J ug/m3	1	3/17/2015 11:28:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 11:28:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 11:28:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 11:28:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 11:28:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 11:28:00 PM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/17/2015 11:28:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 11:28:00 PM
Tetrachloroethylene	2.6	1.0	ug/m3	1	3/17/2015 11:28:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 11:28:00 PM
Trichloroethene	4.3	0.81	ug/m3	1	3/17/2015 11:28:00 PM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/17/2015 11:28:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

 $JN \quad \ \, Non-routine\ analyte.\ Quantitation\ estimated.$ 

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-2-031015

Lab Order:C1503039Tag Number: 333,276Project:Northtown PlazaCollection Date: 3/10/2015

**Lab ID:** C1503039-006A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 4:19:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 4:19:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 4:19:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 4:19:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:19:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 4:19:00 PM
Carbon tetrachloride	0.63	0.25	ug/m3	1	3/17/2015 4:19:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:19:00 PM
Tetrachloroethylene	11	1.0	ug/m3	1	3/17/2015 4:19:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:19:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 4:19:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 4:19:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-4-031015

Lab Order:C1503039Tag Number:1185,1163Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-007A **Matrix:** AIR

Analyses	Result	**Limit Qu	al Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 12:08:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/18/2015 12:08:00 AM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 12:08:00 AM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 12:08:00 AM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:08:00 AM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 12:08:00 AM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/18/2015 12:08:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:08:00 AM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/18/2015 12:08:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:08:00 AM
Trichloroethene	1.5	0.81	ug/m3	1	3/18/2015 12:08:00 AM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/18/2015 12:08:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-4-031015

Lab Order:C1503039Tag Number: 232,262Project:Northtown PlazaCollection Date: 3/10/2015

Project: Northtown Plaza Collection Date: 3/10/2
Lab ID: C1503039-008A Matrix: AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 4:56:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 4:56:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 4:56:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 4:56:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:56:00 PM
1,2-Dichloroethane	0.57	0.61 J	ug/m3	1	3/17/2015 4:56:00 PM
Carbon tetrachloride	0.57	0.25	ug/m3	1	3/17/2015 4:56:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:56:00 PM
Tetrachloroethylene	2.2	1.0	ug/m3	1	3/17/2015 4:56:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 4:56:00 PM
Trichloroethene	0.54	0.21	ug/m3	1	3/17/2015 4:56:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 4:56:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-5-031015

Lab Order:C1503039Tag Number: 93,1167Project:Northtown PlazaCollection Date: 3/10/2015

Project: Northtown Plaza Collection Date: 3/10/2
Lab ID: C1503039-009A Matrix: AIR

Analyses	Result	**Limit Qua	al Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 12:48:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/18/2015 12:48:00 AM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 12:48:00 AM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 12:48:00 AM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:48:00 AM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 12:48:00 AM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/18/2015 12:48:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:48:00 AM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/18/2015 12:48:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 12:48:00 AM
Trichloroethene	0.86	0.81	ug/m3	1	3/18/2015 12:48:00 AM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/18/2015 12:48:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-5-031015

Lab Order:C1503039Tag Number:200,309Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-010A **Matrix:** AIR

Analyses	Result	**Limit Qua	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 5:33:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 5:33:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 5:33:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 5:33:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 5:33:00 PM
1,2-Dichloroethane	2.3	0.61	ug/m3	1	3/17/2015 5:33:00 PM
Carbon tetrachloride	0.63	0.25	ug/m3	1	3/17/2015 5:33:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 5:33:00 PM
Tetrachloroethylene	1.1	1.0	ug/m3	1	3/17/2015 5:33:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 5:33:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 5:33:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 5:33:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: DUPE-IA-031015

Lab Order:C1503039Tag Number:1186,309Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-011A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 6:11:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 6:11:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 6:11:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 6:11:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:11:00 PM
1,2-Dichloroethane	2.1	0.61	ug/m3	1	3/17/2015 6:11:00 PM
Carbon tetrachloride	0.63	0.25	ug/m3	1	3/17/2015 6:11:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:11:00 PM
Tetrachloroethylene	1.1	1.0	ug/m3	1	3/17/2015 6:11:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:11:00 PM
Trichloroethene	0.32	0.21	ug/m3	1	3/17/2015 6:11:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 6:11:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-6A-031015

**Lab Order:** C1503039 **Tag Number:** 1190,277

Project:Northtown PlazaCollection Date: 3/10/2015Lab ID:C1503039-012AMatrix: AIR

Analyses	Result	**Limit (	Qual Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-	15		Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 1:26:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/18/2015 1:26:00 AM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 1:26:00 AM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 1:26:00 AM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 1:26:00 AM
1,2-Dichloroethane	3.1	0.61	ug/m3	1	3/18/2015 1:26:00 AM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/18/2015 1:26:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 1:26:00 AM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/18/2015 1:26:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 1:26:00 AM
Trichloroethene	0.59	0.81	J ug/m3	1	3/18/2015 1:26:00 AM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/18/2015 1:26:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

 $JN \quad \ \, Non-routine\ analyte.\ Quantitation\ estimated.$ 

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: IA-6-031015

Lab Order:C1503039Tag Number:364,1169Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-013A **Matrix:** AIR

Analyses	Result	**Limit Qu	ıal Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC	TO-15				Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 6:49:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 6:49:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 6:49:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 6:49:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:49:00 PM
1,2-Dichloroethane	5.5	0.61	ug/m3	1	3/17/2015 6:49:00 PM
Carbon tetrachloride	0.63	0.25	ug/m3	1	3/17/2015 6:49:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:49:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/17/2015 6:49:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 6:49:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 6:49:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 6:49:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: MS/MSD-031015

Lab Order:C1503039Tag Number:1322,1154Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-014A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 8:07:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 8:07:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 8:07:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 8:07:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 8:07:00 PM
1,2-Dichloroethane	6.9	0.61	ug/m3	1	3/17/2015 8:07:00 PM
Carbon tetrachloride	0.44	0.25	ug/m3	1	3/17/2015 8:07:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 8:07:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/17/2015 8:07:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 8:07:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 8:07:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 8:07:00 PM
NOTES:					

Samlpe shows possible high concetration of acetic acid.

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: OA-031015

Lab Order: C1503039 Tag Number: 554,256
Project: Northtown Plaza Collection Date: 3/10/2015

**Lab ID:** C1503039-015A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 7:28:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 7:28:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 7:28:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 7:28:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 7:28:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 7:28:00 PM
Carbon tetrachloride	0.69	0.25	ug/m3	1	3/17/2015 7:28:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 7:28:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/17/2015 7:28:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 7:28:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 7:28:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 7:28:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: SS-6B-031015

**Lab Order:** C1503039 **Tag Number:** 367,1168

Project: Northtown Plaza Collection Date: 3/10/2015

**Lab ID:** C1503039-016A **Matrix:** AIR

Analyses	Result	**Limit Q	)ual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-1	5			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	3/18/2015 2:06:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	3/18/2015 2:06:00 AM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	3/18/2015 2:06:00 AM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	3/18/2015 2:06:00 AM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	3/18/2015 2:06:00 AM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	3/18/2015 2:06:00 AM
Carbon tetrachloride	< 0.94	0.94		ug/m3	1	3/18/2015 2:06:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	3/18/2015 2:06:00 AM
Tetrachloroethylene	0.88	1.0	J	ug/m3	1	3/18/2015 2:06:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	3/18/2015 2:06:00 AM
Trichloroethene	0.64	0.81	J	ug/m3	1	3/18/2015 2:06:00 AM
Vinyl chloride	< 0.38	0.38		ug/m3	1	3/18/2015 2:06:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

 $JN \quad \ \, Non-routine\ analyte.\ Quantitation\ estimated.$ 

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: TRIP BLANK

Lab Order:C1503039Tag Number:564Project:Northtown PlazaCollection Date:3/10/2015

**Lab ID:** C1503039-017A **Matrix:** AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 2:25:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/17/2015 2:25:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/17/2015 2:25:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 2:25:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 2:25:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/17/2015 2:25:00 PM
Carbon tetrachloride	< 0.25	0.25	ug/m3	1	3/17/2015 2:25:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 2:25:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	3/17/2015 2:25:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/17/2015 2:25:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	3/17/2015 2:25:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	3/17/2015 2:25:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 19-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: Soil Gas East

Lab Order:C1503056Tag Number: 316,293Project:Northtown PlazaCollection Date: 3/13/2015

Project: Northtown Plaza Collection Date: 3/13/2
Lab ID: C1503056-001A Matrix: AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 2:44:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/18/2015 2:44:00 AM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 2:44:00 AM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 2:44:00 AM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 2:44:00 AM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 2:44:00 AM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/18/2015 2:44:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 2:44:00 AM
Tetrachloroethylene	5.4	1.0	ug/m3	1	3/18/2015 2:44:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 2:44:00 AM
Trichloroethene	< 0.81	0.81	ug/m3	1	3/18/2015 2:44:00 AM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/18/2015 2:44:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 20-Mar-15

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: Soil Gas West

Project: Northtown Plaza Collection Date: 3/13/2015

**Lab ID:** C1503056-002A **Matrix:** AIR

Analyses	Result	**Limit Qua	al Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15			Analyst: <b>RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 3:22:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	3/18/2015 3:22:00 AM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	3/18/2015 3:22:00 AM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 3:22:00 AM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 3:22:00 AM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	3/18/2015 3:22:00 AM
Carbon tetrachloride	< 0.94	0.94	ug/m3	1	3/18/2015 3:22:00 AM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 3:22:00 AM
Tetrachloroethylene	8.5	1.0	ug/m3	1	3/18/2015 3:22:00 AM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	3/18/2015 3:22:00 AM
Trichloroethene	< 0.81	0.81	ug/m3	1	3/18/2015 3:22:00 AM
Vinyl chloride	< 0.38	0.38	ug/m3	1	3/18/2015 3:22:00 AM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 20-Mar-15



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-4-031715

Lab Sample ID:150857-01Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		3/19/2015 17:04
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		3/19/2015 17:04
1,1,2-Trichloroethane	< 2.00	ug/L		3/19/2015 17:04
1,1-Dichloroethane	< 2.00	ug/L		3/19/2015 17:04
1,1-Dichloroethene	< 2.00	ug/L		3/19/2015 17:04
1,2-Dichlorobenzene	< 2.00	ug/L		3/19/2015 17:04
1,2-Dichloroethane	< 2.00	ug/L		3/19/2015 17:04
1,2-Dichloropropane	< 2.00	ug/L		3/19/2015 17:04
1,3-Dichlorobenzene	< 2.00	ug/L		3/19/2015 17:04
1,4-Dichlorobenzene	< 2.00	ug/L		3/19/2015 17:04
Bromodichloromethane	< 2.00	ug/L		3/19/2015 17:04
Bromoform	< 5.00	ug/L		3/19/2015 17:04
Bromomethane	< 2.00	ug/L		3/19/2015 17:04
Carbon Tetrachloride	< 2.00	ug/L		3/19/2015 17:04
Chlorobenzene	< 2.00	ug/L		3/19/2015 17:04
Chloroethane	< 2.00	ug/L		3/19/2015 17:04
Chloroform	< 2.00	ug/L		3/19/2015 17:04
Chloromethane	< 2.00	ug/L		3/19/2015 17:04
cis-1,2-Dichloroethene	< 2.00	ug/L		3/19/2015 17:04
cis-1,3-Dichloropropene	< 2.00	ug/L		3/19/2015 17:04
Dibromochloromethane	< 2.00	ug/L		3/19/2015 17:04
Methylene chloride	< 5.00	ug/L		3/19/2015 17:04
Tetrachloroethene	< 2.00	ug/L		3/19/2015 17:04
trans-1,2-Dichloroethene	< 2.00	ug/L		3/19/2015 17:04
trans-1,3-Dichloropropene	< 2.00	ug/L		3/19/2015 17:04
Trichloroethene	< 2.00	ug/L		3/19/2015 17:04
Trichlorofluoromethane	< 2.00	ug/L		3/19/2015 17:04



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-4-031715

Lab Sample ID:150857-01Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

Vinyl chloride	< 2.00	ıg/L		3/19/2015	5 17:04
<u>Surrogate</u>	Percent Ro	ecovery <u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	105	80.4 - 116		3/19/2015	17:04
4-Bromofluorobenzene	95.8	87 - 109		3/19/2015	17:04
Pentafluorobenzene	100	92.8 - 109		3/19/2015	17:04
Toluene-D8	98.5	92.1 - 107		3/19/2015	17:04

Method Reference(s): EPA 8260C

EPA 5030

Data File: x21097.D



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-6-031715

Lab Sample ID:150857-02Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

### **Volatile Organics**

<u>Analyte</u>	Result	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 400	ug/L		3/20/2015 11:32
1,1,2,2-Tetrachloroethane	< 400	ug/L		3/20/2015 11:32
1,1,2-Trichloroethane	< 400	ug/L		3/20/2015 11:32
1,1-Dichloroethane	< 400	ug/L		3/20/2015 11:32
1,1-Dichloroethene	< 400	ug/L		3/20/2015 11:32
1,2-Dichlorobenzene	< 400	ug/L		3/20/2015 11:32
1,2-Dichloroethane	< 400	ug/L		3/20/2015 11:32
1,2-Dichloropropane	< 400	ug/L		3/20/2015 11:32
1,3-Dichlorobenzene	< 400	ug/L		3/20/2015 11:32
1,4-Dichlorobenzene	< 400	ug/L		3/20/2015 11:32
Bromodichloromethane	< 400	ug/L		3/20/2015 11:32
Bromoform	< 1000	ug/L		3/20/2015 11:32
Bromomethane	< 400	ug/L		3/20/2015 11:32
Carbon Tetrachloride	< 400	ug/L		3/20/2015 11:32
Chlorobenzene	< 400	ug/L		3/20/2015 11:32
Chloroethane	< 400	ug/L		3/20/2015 11:32
Chloroform	< 400	ug/L		3/20/2015 11:32
Chloromethane	< 400	ug/L		3/20/2015 11:32
cis-1,2-Dichloroethene	2080	ug/L		3/20/2015 11:32
cis-1,3-Dichloropropene	< 400	ug/L		3/20/2015 11:32
Dibromochloromethane	< 400	ug/L		3/20/2015 11:32
Methylene chloride	< 1000	ug/L		3/20/2015 11:32
Tetrachloroethene	21700	ug/L		3/20/2015 11:32
trans-1,2-Dichloroethene	< 400	ug/L		3/20/2015 11:32
trans-1,3-Dichloropropene	< 400	ug/L		3/20/2015 11:32
Trichloroethene	2690	ug/L		3/20/2015 11:32
Trichlorofluoromethane	< 400	ug/L		3/20/2015 11:32



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-6-031715

Lab Sample ID:150857-02Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

Vinyl chloride	< 400 ug/L			3/20/2015	5 11:32
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	107	80.4 - 116		3/20/2015	11:32
4-Bromofluorobenzene	97.8	87 - 109		3/20/2015	11:32
Pentafluorobenzene	99.0	92.8 - 109		3/20/2015	11:32
Toluene-D8	97.0	92.1 - 107		3/20/2015	11:32

Method Reference(s): EPA 8260C

EPA 5030

Data File: x21148.D



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-7-031715

Lab Sample ID:150857-03Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 400	ug/L		3/20/2015 11:56
1,1,2,2-Tetrachloroethane	< 400	ug/L		3/20/2015 11:56
1,1,2-Trichloroethane	< 400	ug/L		3/20/2015 11:56
1,1-Dichloroethane	< 400	ug/L		3/20/2015 11:56
1,1-Dichloroethene	< 400	ug/L		3/20/2015 11:56
1,2-Dichlorobenzene	< 400	ug/L		3/20/2015 11:56
1,2-Dichloroethane	< 400	ug/L		3/20/2015 11:56
1,2-Dichloropropane	< 400	ug/L		3/20/2015 11:56
1,3-Dichlorobenzene	< 400	ug/L		3/20/2015 11:56
1,4-Dichlorobenzene	< 400	ug/L		3/20/2015 11:56
Bromodichloromethane	< 400	ug/L		3/20/2015 11:56
Bromoform	< 1000	ug/L		3/20/2015 11:56
Bromomethane	< 400	ug/L		3/20/2015 11:56
Carbon Tetrachloride	< 400	ug/L		3/20/2015 11:56
Chlorobenzene	< 400	ug/L		3/20/2015 11:56
Chloroethane	< 400	ug/L		3/20/2015 11:56
Chloroform	< 400	ug/L		3/20/2015 11:56
Chloromethane	< 400	ug/L		3/20/2015 11:56
cis-1,2-Dichloroethene	389	ug/L	J	3/20/2015 11:56
cis-1,3-Dichloropropene	< 400	ug/L		3/20/2015 11:56
Dibromochloromethane	< 400	ug/L		3/20/2015 11:56
Methylene chloride	< 1000	ug/L		3/20/2015 11:56
Tetrachloroethene	31900	ug/L		3/20/2015 11:56
trans-1,2-Dichloroethene	< 400	ug/L		3/20/2015 11:56
trans-1,3-Dichloropropene	< 400	ug/L		3/20/2015 11:56
Trichloroethene	< 400	ug/L		3/20/2015 11:56
Trichlorofluoromethane	< 400	ug/L		3/20/2015 11:56



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** MW-7-031715

Lab Sample ID:150857-03Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

Vinyl chloride	< 400 ug/L			3/20/2015	5 11:56
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	vzed
1,2-Dichloroethane-d4	104	80.4 - 116		3/20/2015	11:56
4-Bromofluorobenzene	100	87 - 109		3/20/2015	11:56
Pentafluorobenzene	99.3	92.8 - 109		3/20/2015	11:56
Toluene-D8	97.6	92.1 - 107		3/20/2015	11:56

Method Reference(s): EPA 8260C

EPA 5030

**Data File:** x21149.D



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

**Sample Identifier:** Dup-031715

Lab Sample ID:150857-04Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

### **Volatile Organics**

Analyte	<b>Result</b>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 400	ug/L		3/20/2015 12:20
1,1,2,2-Tetrachloroethane	< 400	ug/L		3/20/2015 12:20
1,1,2-Trichloroethane	< 400	ug/L		3/20/2015 12:20
1,1-Dichloroethane	< 400	ug/L		3/20/2015 12:20
1,1-Dichloroethene	< 400	ug/L		3/20/2015 12:20
1,2-Dichlorobenzene	< 400	ug/L		3/20/2015 12:20
1,2-Dichloroethane	< 400	ug/L		3/20/2015 12:20
1,2-Dichloropropane	< 400	ug/L		3/20/2015 12:20
1,3-Dichlorobenzene	< 400	ug/L		3/20/2015 12:20
1,4-Dichlorobenzene	< 400	ug/L		3/20/2015 12:20
Bromodichloromethane	< 400	ug/L		3/20/2015 12:20
Bromoform	< 1000	ug/L		3/20/2015 12:20
Bromomethane	< 400	ug/L		3/20/2015 12:20
Carbon Tetrachloride	< 400	ug/L		3/20/2015 12:20
Chlorobenzene	< 400	ug/L		3/20/2015 12:20
Chloroethane	< 400	ug/L		3/20/2015 12:20
Chloroform	< 400	ug/L		3/20/2015 12:20
Chloromethane	< 400	ug/L		3/20/2015 12:20
cis-1,2-Dichloroethene	2960	ug/L		3/20/2015 12:20
cis-1,3-Dichloropropene	< 400	ug/L		3/20/2015 12:20
Dibromochloromethane	< 400	ug/L		3/20/2015 12:20
Methylene chloride	< 1000	ug/L		3/20/2015 12:20
Tetrachloroethene	18500	ug/L		3/20/2015 12:20
trans-1,2-Dichloroethene	< 400	ug/L		3/20/2015 12:20
trans-1,3-Dichloropropene	< 400	ug/L		3/20/2015 12:20
Trichloroethene	2510	ug/L		3/20/2015 12:20
Trichlorofluoromethane	< 400	ug/L		3/20/2015 12:20



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30, Task 2/Sub Task 3

Sample Identifier: Dup-031715

Lab Sample ID:150857-04Date Sampled:3/17/2015Matrix:GroundwaterDate Received:3/18/2015

Vinyl chloride	< 400	ug/L			3/20/2015	5 12:20
<u>Surrogate</u>	<u>Percent</u>	Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	<u>zed</u>
1,2-Dichloroethane-d4	10	03	80.4 - 116		3/20/2015	12:20
4-Bromofluorobenzene	97	7.7	87 - 109		3/20/2015	12:20
Pentafluorobenzene	10	02	92.8 - 109		3/20/2015	12:20
Toluene-D8	96	6.6	92.1 - 107		3/20/2015	12:20

Method Reference(s): EPA 8260C

EPA 5030

Data File: x21150.D



## **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted OC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
"(1)" = Indicates data from primary column used for QC calculation.

### GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written. between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.



Quotation #:  Email:  todd, bow M & GZO COM  SD. Solid WP - Wipe OL - Oil  PT - Paint CK. Caulik AR - Air  PARADIGM LAB  SAMPLE  NUMBER  NUMBER  Total Cost:  Total Cost:	SO - Soil SL - Sludge  SL - Sludge  A CACATA  A CACATA	DW - Drinking Water WW - Wastewater WW - Wastewater	ADDRIVATE STOUNDWATER STOUNDWA	ROJECT REFERENCE  SOBOLECTED  Note collected  Note that it is a sample identified with the collected by the	NCE  NCE  ATTN:  Matrix  Matrix  Repor  Repor	COLLECTED TIME COLLECTED ON SOLUTION OF COLLECTED ON TIME COLLECTE	PROJECT REFEREN  31.00 \$6687.3  7654 2   Subtas  1 3   17   15 0930  2 3   17   15 0930  2 3   17   15 0930  3 3   17   15 0930  4 3   17   15 0930  5 3   3   15 5  6 322.4 2 2 1  7 m 3   3   15 5  8 8  9 9  10  Turnaround Time  Availability contingent Standard 5 day  Rush 3 day  B  Rush 3 day  B  Rush 3 day  Tornaround Time  Availability contingent
---	--	---	--	---	--	--	--

Other please indicate:

242



## Chain of Custody Supplement

Client:	G-6-A-	_ Completed by:	1/40yVav
Lab Project ID:	150857	Date:	3/18/15
	Per NELAC/ELAP	tion Requirements 210/241/242/243/244	
A	NELAC compliance with the samp	le condition requirements upo No	n receipt N/A
Condition	Yes	NO	
Container Type			
Comments			
Transferred to method- compliant container			
Headspace (<1 mL)			
Preservation			
Comments	· ba		
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time			
Comments			
Temperature			
Comments	no bottle cent	to dientured H	eir viels
Sufficient Sample Quantity			
Comment	s		
			·



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** MW-9-042715

Lab Sample ID:151551-01Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

#### **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/28/2015 13:11
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/28/2015 13:11
1,1,2-Trichloroethane	< 2.00	ug/L		4/28/2015 13:11
1,1-Dichloroethane	< 2.00	ug/L		4/28/2015 13:11
1,1-Dichloroethene	< 2.00	ug/L		4/28/2015 13:11
1,2-Dichlorobenzene	< 2.00	ug/L		4/28/2015 13:11
1,2-Dichloroethane	< 2.00	ug/L		4/28/2015 13:11
1,2-Dichloropropane	< 2.00	ug/L		4/28/2015 13:11
1,3-Dichlorobenzene	< 2.00	ug/L		4/28/2015 13:11
1,4-Dichlorobenzene	< 2.00	ug/L		4/28/2015 13:11
Bromodichloromethane	< 2.00	ug/L		4/28/2015 13:11
Bromoform	< 5.00	ug/L		4/28/2015 13:11
Bromomethane	< 2.00	ug/L		4/28/2015 13:11
Carbon Tetrachloride	< 2.00	ug/L		4/28/2015 13:11
Chlorobenzene	< 2.00	ug/L		4/28/2015 13:11
Chloroethane	< 2.00	ug/L		4/28/2015 13:11
Chloroform	< 2.00	ug/L		4/28/2015 13:11
Chloromethane	< 2.00	ug/L		4/28/2015 13:11
cis-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 13:11
cis-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 13:11
Dibromochloromethane	< 2.00	ug/L		4/28/2015 13:11
Methylene chloride	< 5.00	ug/L		4/28/2015 13:11
Tetrachloroethene	< 2.00	ug/L		4/28/2015 13:11
trans-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 13:11
trans-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 13:11
Trichloroethene	< 2.00	ug/L		4/28/2015 13:11
Trichlorofluoromethane	< 2.00	ug/L		4/28/2015 13:11



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** MW-9-042715

Lab Sample ID:151551-01Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

Vinyl chloride	< 2.00 ug/L			4/28/2015	13:11
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	<u>zed</u>
1,2-Dichloroethane-d4	101	82.3 - 115		4/28/2015	13:11
4-Bromofluorobenzene	92.2	85.5 - 111		4/28/2015	13:11
Pentafluorobenzene	98.7	91.2 - 107		4/28/2015	13:11
Toluene-D8	94.9	90.9 - 108		4/28/2015	13:11

Method Reference(s): EPA 8260C

EPA 5030

Data File: x22247.D



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** DUP-1-042715, Duplicate

Lab Sample ID:151551-02Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/28/2015 12:47
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/28/2015 12:47
1,1,2-Trichloroethane	< 2.00	ug/L		4/28/2015 12:47
1,1-Dichloroethane	< 2.00	ug/L		4/28/2015 12:47
1,1-Dichloroethene	< 2.00	ug/L		4/28/2015 12:47
1,2-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:47
1,2-Dichloroethane	< 2.00	ug/L		4/28/2015 12:47
1,2-Dichloropropane	< 2.00	ug/L		4/28/2015 12:47
1,3-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:47
1,4-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:47
Bromodichloromethane	< 2.00	ug/L		4/28/2015 12:47
Bromoform	< 5.00	ug/L		4/28/2015 12:47
Bromomethane	< 2.00	ug/L		4/28/2015 12:47
Carbon Tetrachloride	< 2.00	ug/L		4/28/2015 12:47
Chlorobenzene	< 2.00	ug/L		4/28/2015 12:47
Chloroethane	< 2.00	ug/L		4/28/2015 12:47
Chloroform	< 2.00	ug/L		4/28/2015 12:47
Chloromethane	< 2.00	ug/L		4/28/2015 12:47
cis-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:47
cis-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:47
Dibromochloromethane	< 2.00	ug/L		4/28/2015 12:47
Methylene chloride	< 5.00	ug/L		4/28/2015 12:47
Tetrachloroethene	< 2.00	ug/L		4/28/2015 12:47
trans-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:47
trans-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:47
Trichloroethene	< 2.00	ug/L		4/28/2015 12:47
Trichlorofluoromethane	< 2.00	ug/L		4/28/2015 12:47



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** DUP-1-042715, Duplicate

Lab Sample ID:151551-02Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

Vinyl chloride	< 2.00 ug/L			4/28/2015	5 12:47
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analy</b>	<u>vzed</u>
1,2-Dichloroethane-d4	98.7	82.3 - 115		4/28/2015	12:47
4-Bromofluorobenzene	88.8	85.5 - 111		4/28/2015	12:47
Pentafluorobenzene	101	91.2 - 107		4/28/2015	12:47
Toluene-D8	95.3	90.9 - 108		4/28/2015	12:47

Method Reference(s): EPA 8260C

EPA 5030

Data File: x22246.D



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** MW-8-042715

Lab Sample ID:151551-03Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

#### **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/28/2015 12:23
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/28/2015 12:23
1,1,2-Trichloroethane	< 2.00	ug/L		4/28/2015 12:23
1,1-Dichloroethane	< 2.00	ug/L		4/28/2015 12:23
1,1-Dichloroethene	< 2.00	ug/L		4/28/2015 12:23
1,2-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:23
1,2-Dichloroethane	< 2.00	ug/L		4/28/2015 12:23
1,2-Dichloropropane	< 2.00	ug/L		4/28/2015 12:23
1,3-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:23
1,4-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:23
Bromodichloromethane	< 2.00	ug/L		4/28/2015 12:23
Bromoform	< 5.00	ug/L		4/28/2015 12:23
Bromomethane	< 2.00	ug/L		4/28/2015 12:23
Carbon Tetrachloride	< 2.00	ug/L		4/28/2015 12:23
Chlorobenzene	< 2.00	ug/L		4/28/2015 12:23
Chloroethane	< 2.00	ug/L		4/28/2015 12:23
Chloroform	< 2.00	ug/L		4/28/2015 12:23
Chloromethane	< 2.00	ug/L		4/28/2015 12:23
cis-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:23
cis-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:23
Dibromochloromethane	< 2.00	ug/L		4/28/2015 12:23
Methylene chloride	< 5.00	ug/L		4/28/2015 12:23
Tetrachloroethene	< 2.00	ug/L		4/28/2015 12:23
trans-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:23
trans-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:23
Trichloroethene	< 2.00	ug/L		4/28/2015 12:23
Trichlorofluoromethane	< 2.00	ug/L		4/28/2015 12:23



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** MW-8-042715

Lab Sample ID:151551-03Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

Vinyl chloride	< 2.00 ug/L			4/28/2015	5 12:23
<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	96.0	82.3 - 115		4/28/2015	12:23
4-Bromofluorobenzene	93.0	85.5 - 111		4/28/2015	12:23
Pentafluorobenzene	98.6	91.2 - 107		4/28/2015	12:23
Toluene-D8	94.6	90.9 - 108		4/28/2015	12:23

Method Reference(s): EPA 8260C

EPA 5030

Data File: x22245.D



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** TB-1-042715, Trip Blank

Lab Sample ID:151551-04Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

#### **Volatile Organics**

Analyte	Result	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		4/28/2015 12:00
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		4/28/2015 12:00
1,1,2-Trichloroethane	< 2.00	ug/L		4/28/2015 12:00
1,1-Dichloroethane	< 2.00	ug/L		4/28/2015 12:00
1,1-Dichloroethene	< 2.00	ug/L		4/28/2015 12:00
1,2-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:00
1,2-Dichloroethane	< 2.00	ug/L		4/28/2015 12:00
1,2-Dichloropropane	< 2.00	ug/L		4/28/2015 12:00
1,3-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:00
1,4-Dichlorobenzene	< 2.00	ug/L		4/28/2015 12:00
Bromodichloromethane	< 2.00	ug/L		4/28/2015 12:00
Bromoform	< 5.00	ug/L		4/28/2015 12:00
Bromomethane	< 2.00	ug/L		4/28/2015 12:00
Carbon Tetrachloride	< 2.00	ug/L		4/28/2015 12:00
Chlorobenzene	< 2.00	ug/L		4/28/2015 12:00
Chloroethane	< 2.00	ug/L		4/28/2015 12:00
Chloroform	< 2.00	ug/L		4/28/2015 12:00
Chloromethane	< 2.00	ug/L		4/28/2015 12:00
cis-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:00
cis-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:00
Dibromochloromethane	< 2.00	ug/L		4/28/2015 12:00
Methylene chloride	< 5.00	ug/L		4/28/2015 12:00
Tetrachloroethene	< 2.00	ug/L		4/28/2015 12:00
trans-1,2-Dichloroethene	< 2.00	ug/L		4/28/2015 12:00
trans-1,3-Dichloropropene	< 2.00	ug/L		4/28/2015 12:00
Trichloroethene	< 2.00	ug/L		4/28/2015 12:00
Trichlorofluoromethane	< 2.00	ug/L		4/28/2015 12:00



Client: GZA Geo Environmental of New York

**Project Reference:** Northtown Plaza Site 31.0056687.30 Task 9999

**Sample Identifier:** TB-1-042715, Trip Blank

Lab Sample ID:151551-04Date Sampled:4/27/2015Matrix:WaterDate Received:4/28/2015

Vinyl chloride	< 2.00	ug/L	<u> </u>	<u> </u>	4/28/2015	12:00
<u>Surrogate</u>	Percent 1	Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	97	7.5	32.3 - 115		4/28/2015	12:00
4-Bromofluorobenzene	90	).3	35.5 - 111		4/28/2015	12:00
Pentafluorobenzene	10	00	91.2 - 107		4/28/2015	12:00
Toluene-D8	94	4. <b>0</b>	90.9 - 108		4/28/2015	12:00

Method Reference(s): EPA 8260C

EPA 5030

Data File: x22244.D



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted OC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
"(1)" = Indicates data from primary column used for QC calculation.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written. between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.



# CHAIN OF CUSTODY

	REPORT TO:		OICE IC;		
TARAUIGM	300	CLIENT:	165	LAB PR	J
	STATE:	STATE: STATE:	TE: ZIP:	Quotation #:	
	PHONE 716-844-7048	PHONE:		Email:	دهي
PROJECT REFERENCE	ATTN: JAMES PICHER	ATTN:			
31.0056687.30 Task 9989	Matrix Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	WA - Water  WG - Groundwater  WW - Wastewater	SO - Soil SL - Sludge	SD - Solid WP - Wipe PT - Paint CK - Caulk	OL - Oil AR - Air
per J K 604/88/15		REQUESTED AN	ANALYSIS		
DATE COLLECTED TIME COLLECTED O A A B E E	SAMPLE IDENTIFIER	X-D-DE  WHOOO  TO DIESEZ  WARZ-D-1200  YOU'S 8260  CHUNHIST  CONLY		REMARKS	PARADIGM LAB SAMPLE NUMBER
4/27/15 10:37	MW-9-042715	WB 2 X		- Address	0
2 1 (040 X	DUP-1-042715	WA 2 X	סקי	PUPCICATA	0 0
3 11 1205	B1250-8-MM	N X			0
- GERT CONNET	TB-1-042715	<b>N</b> P -	TEA	のできた	C
7					
9					
10	To the state of th				
Turnaround Time	Report Supplements		Dans I		
Availability contingent upon lab approval; additional fees may apply.	proval; additional fees may apply.	Moon a roll	1 Cill	7.00	
Standard 5 day Batch QC	Basic EDD	Sampledyby	+/27//5 14:15	Joan Cost.	
Rush 3 day Category A	NYSDEC EDD N	Relinquished By			
Rush 2 day Category B	National State of the State of	Received By	Date/Time	P.I.F.	
Rush 1 day	51/38/h 09	7	4/28/15 09:2	7	
Other Other	Other EDD	Received @ Lab By	Date/Time		

Other please indicate:

Other please indicate:

Other EDD please indicate:

sicily 4/28/15 09:02



# Chain of Custody Supplement

Client:	GZA Geo Envilor Mentel	Completed by:	Glenn Pezzalo
Lab Project ID:	151551	Date:	4/28/15
•	Sample Condition Per NELAC/ELAP 210/2	<b>Requirements</b> 41/242/243/244	
Condition	NELAC compliance with the sample con Yes	dition requirements upo No	n receipt N/A
Container Type			
Comments	:		
Transferred to method- compliant container			
Headspace (<1 mL) Comments			
Preservation  Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time  Comments			
Temperature Comments	5°Ciced		
Sufficient Sample Quantity  Comments			



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30 Task 9999

**Sample Identifier:** MW-9-11-042215

 Lab Sample ID:
 151469-01
 Date Sampled:
 4/22/2015

 Matrix:
 Soil
 Date Received:
 4/23/2015

#### **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<b>Qualifier</b>	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 4.51	ug/Kg		4/23/2015 18:39
1,1,2,2-Tetrachloroethane	< 4.51	ug/Kg		4/23/2015 18:39
1,1,2-Trichloroethane	< 4.51	ug/Kg		4/23/2015 18:39
1,1-Dichloroethane	< 4.51	ug/Kg		4/23/2015 18:39
1,1-Dichloroethene	< 4.51	ug/Kg		4/23/2015 18:39
1,2-Dichlorobenzene	< 4.51	ug/Kg		4/23/2015 18:39
1,2-Dichloroethane	< 4.51	ug/Kg		4/23/2015 18:39
1,2-Dichloropropane	< 4.51	ug/Kg		4/23/2015 18:39
1,3-Dichlorobenzene	< 4.51	ug/Kg		4/23/2015 18:39
1,4-Dichlorobenzene	< 4.51	ug/Kg		4/23/2015 18:39
Bromodichloromethane	< 4.51	ug/Kg		4/23/2015 18:39
Bromoform	< 11.3	ug/Kg		4/23/2015 18:39
Bromomethane	< 4.51	ug/Kg		4/23/2015 18:39
Carbon Tetrachloride	< 4.51	ug/Kg		4/23/2015 18:39
Chlorobenzene	< 4.51	ug/Kg		4/23/2015 18:39
Chloroethane	< 4.51	ug/Kg		4/23/2015 18:39
Chloroform	< 4.51	ug/Kg		4/23/2015 18:39
Chloromethane	< 4.51	ug/Kg		4/23/2015 18:39
cis-1,2-Dichloroethene	< 4.51	ug/Kg		4/23/2015 18:39
cis-1,3-Dichloropropene	< 4.51	ug/Kg		4/23/2015 18:39
Dibromochloromethane	< 4.51	ug/Kg		4/23/2015 18:39
Methylene chloride	< 11.3	ug/Kg		4/23/2015 18:39
Tetrachloroethene	< 4.51	ug/Kg		4/23/2015 18:39
trans-1,2-Dichloroethene	< 4.51	ug/Kg		4/23/2015 18:39
trans-1,3-Dichloropropene	< 4.51	ug/Kg		4/23/2015 18:39
Trichloroethene	< 4.51	ug/Kg		4/23/2015 18:39
Trichlorofluoromethane	< 4.51	ug/Kg		4/23/2015 18:39



Client: <u>GZA Geo Environmental of New York</u>

**Project Reference:** 31.0056687.30 Task 9999

**Sample Identifier:** MW-9-11-042215

 Lab Sample ID:
 151469-01
 Date Sampled:
 4/22/2015

 Matrix:
 Soil
 Date Received:
 4/23/2015

Vinyl chloride	< 4.51	ug/Kg			4/23/2015	5 18:39
Surrogate	<u>Percen</u>	Percent Recovery		<u>Outliers</u>	<b>Date Analyzed</b>	
1,2-Dichloroethane-d4		105	80.6 - 125		4/23/2015	18:39
4-Bromofluorobenzene	:	88.0	86.6 - 111		4/23/2015	18:39
Pentafluorobenzene		96.5	90.9 - 107		4/23/2015	18:39
Toluene-D8	1	95.3	90.8 - 109		4/23/2015	18:39

Method Reference(s): EPA 8260C

EPA 5035

Data File: x22141.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



Client: GZA Geo Environmental of New York

**Project Reference:** 31.0056687.30 Task 9999

**Sample Identifier:** MW-8-14-042215

 Lab Sample ID:
 151469-02
 Date Sampled:
 4/22/2015

 Matrix:
 Soil
 Date Received:
 4/23/2015

#### **Volatile Organics**

<u>Analyte</u>	<b>Result</b>	<u>Units</u>	<b>Qualifier</b>	Date Analyzed
1,1,1-Trichloroethane	< 4.21	ug/Kg		4/23/2015 19:03
1,1,2,2-Tetrachloroethane	< 4.21	ug/Kg		4/23/2015 19:03
1,1,2-Trichloroethane	< 4.21	ug/Kg		4/23/2015 19:03
1,1-Dichloroethane	< 4.21	ug/Kg		4/23/2015 19:03
1,1-Dichloroethene	< 4.21	ug/Kg		4/23/2015 19:03
1,2-Dichlorobenzene	< 4.21	ug/Kg		4/23/2015 19:03
1,2-Dichloroethane	< 4.21	ug/Kg		4/23/2015 19:03
1,2-Dichloropropane	< 4.21	ug/Kg		4/23/2015 19:03
1,3-Dichlorobenzene	< 4.21	ug/Kg		4/23/2015 19:03
1,4-Dichlorobenzene	< 4.21	ug/Kg		4/23/2015 19:03
Bromodichloromethane	< 4.21	ug/Kg		4/23/2015 19:03
Bromoform	< 10.5	ug/Kg		4/23/2015 19:03
Bromomethane	< 4.21	ug/Kg		4/23/2015 19:03
Carbon Tetrachloride	< 4.21	ug/Kg		4/23/2015 19:03
Chlorobenzene	< 4.21	ug/Kg		4/23/2015 19:03
Chloroethane	< 4.21	ug/Kg		4/23/2015 19:03
Chloroform	< 4.21	ug/Kg		4/23/2015 19:03
Chloromethane	< 4.21	ug/Kg		4/23/2015 19:03
cis-1,2-Dichloroethene	< 4.21	ug/Kg		4/23/2015 19:03
cis-1,3-Dichloropropene	< 4.21	ug/Kg		4/23/2015 19:03
Dibromochloromethane	< 4.21	ug/Kg		4/23/2015 19:03
Methylene chloride	< 10.5	ug/Kg		4/23/2015 19:03
Tetrachloroethene	< 4.21	ug/Kg		4/23/2015 19:03
trans-1,2-Dichloroethene	< 4.21	ug/Kg		4/23/2015 19:03
trans-1,3-Dichloropropene	< 4.21	ug/Kg		4/23/2015 19:03
Trichloroethene	< 4.21	ug/Kg		4/23/2015 19:03
Trichlorofluoromethane	< 4.21	ug/Kg		4/23/2015 19:03



Client: GZA Geo Environmental of New York

**Project Reference:** 31.0056687.30 Task 9999

**Sample Identifier:** MW-8-14-042215

 Lab Sample ID:
 151469-02
 Date Sampled:
 4/22/2015

 Matrix:
 Soil
 Date Received:
 4/23/2015

Vinyl chloride	< 4.21	ug/Kg			4/23/2015	5 19:03			
<u>Surrogate</u>	<u>Percen</u>	t Recovery	<u>Limits</u>	<b>Outliers</b>	<b>Date Analyzed</b>				
1,2-Dichloroethane-d4		106	80.6 - 125		4/23/2015	19:03			
4-Bromofluorobenzene		90.5	86.6 - 111		4/23/2015	19:03			
Pentafluorobenzene	•	96.8	90.9 - 107		4/23/2015	19:03			
Toluene-D8	•	95.7	90.8 - 109		4/23/2015	19:03			

Method Reference(s): EPA 8260C

EPA 5035

**Data File:** x22142.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted OC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
"(1)" = Indicates data from primary column used for QC calculation.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written. between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

# CHAIN OF CUSTODY



U DATE COLLECTED 0050687,30 PROJECT REFERENCE TIME COLLECTED 5000 m ⊣ − ω ο ™ ≤ ο ο ៰៴៷៰ Matrix Codes:
AQ - Aqueous Liquid
NQ - Non-Aqueous Liquid PHONE: 0 SAMPLE IDENTIFIER L REPORT TO: クドリピース Zerana Zerana WA - Water WG - Groundwater X - Z - Z Z S M D O C CLIENT: PHONE: CITY: ADDRESS: **DW** - Drinking Water **WW** - Wastewater REQUESTED ANALYSIS INVOICE TO: SO - Soil SL - Sludge のようメ であった。 のでする SD - Solid PT - Paint Email: James richertegarlow Quotation # No Andrown Work ングジ REMARKS LAB PROJECT ID 5/469Bush @ FRA. のできる WP - Wipe CK - Caulk OL - Oil AR - Air PARADIGM LAB SAMPLE NUMBER 0 C 2012 رع

J. Hoffman

No Custody Souls on cooler, shipped via ups, 69 4/2011 S



# Chain of Custody Supplement

Client:	GZA Geo Environmental	Completed by:	Glem Pezzulo
Lab Project ID:	151469	Date:	4/23/15
	Sample Condition Reper NELAC/ELAP 210/24:		
Condition	NELAC compliance with the sample condi Yes	ition requirements upo No	on receipt N/A
Container Type		S035	
Comments			
Transferred to method- compliant container			
Headspace (<1 mL) Comments			
Preservation  Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time  Comments			
Temperature  Comments	6°C iced		
Sufficient Sample Quantity  Comments			
	:		

# Centek Laboratories, LLC

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: TA-SS-042015

Lab Order:C1504069Tag Number: 95,301Project:Total AutomotiveCollection Date: 4/20/2015

**Lab ID:** C1504069-001A **Matrix:** AIR

Analyses	Result	**Limit Q	ual Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-1		Analyst: RJP	
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	4/21/2015 2:58:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	4/21/2015 2:58:00 PM
1,1,2-Trichloroethane	8.7	0.82	ug/m3	1	4/21/2015 2:58:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 2:58:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 2:58:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 2:58:00 PM
Carbon tetrachloride	0.75	0.94	J ug/m3	1	4/21/2015 2:58:00 PM
cis-1,2-Dichloroethene	430	160	ug/m3	270	4/21/2015 4:14:00 PM
Tetrachloroethylene	2500	270	ug/m3	270	4/21/2015 4:14:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 2:58:00 PM
Trichloroethene	2000	210	ug/m3	270	4/21/2015 4:14:00 PM
Vinyl chloride	0.66	0.38	ug/m3	1	4/21/2015 2:58:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

 $JN \quad \ \, Non-routine\ analyte.\ Quantitation\ estimated.$ 

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 22-Apr-15

ND Not Detected at the Reporting Limit

# Centek Laboratories, LLC

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: TA-IA-042015

Lab Order:C1504069Tag Number:1186,1168Project:Total AutomotiveCollection Date:4/20/2015

Lab ID: C1504069-002A Matrix: AIR

Analyses	Result	**Limit Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15		Analyst: RJP	
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	4/21/2015 1:42:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	4/21/2015 1:42:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	4/21/2015 1:42:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 1:42:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 1:42:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 1:42:00 PM
Carbon tetrachloride	0.69	0.25	ug/m3	1	4/21/2015 1:42:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 1:42:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	4/21/2015 1:42:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 1:42:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	4/21/2015 1:42:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	4/21/2015 1:42:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 22-Apr-15

ND Not Detected at the Reporting Limit

# Centek Laboratories, LLC

CLIENT: GZA GeoEnvironmental, Inc. Client Sample ID: TA-OA-042015

**Lab Order:** C1504069 **Tag Number:** 366,1157

Project: Total Automotive Collection Date: 4/20/2015

**Lab ID:** C1504069-003A **Matrix:** AIR

Analyses	Result	**Limit Qu	ıal Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15		Analyst: RJP	
1,1,1-Trichloroethane	< 0.82	0.82	ug/m3	1	4/21/2015 2:20:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0	ug/m3	1	4/21/2015 2:20:00 PM
1,1,2-Trichloroethane	< 0.82	0.82	ug/m3	1	4/21/2015 2:20:00 PM
1,1-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 2:20:00 PM
1,1-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 2:20:00 PM
1,2-Dichloroethane	< 0.61	0.61	ug/m3	1	4/21/2015 2:20:00 PM
Carbon tetrachloride	0.94	0.25	ug/m3	1	4/21/2015 2:20:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 2:20:00 PM
Tetrachloroethylene	< 1.0	1.0	ug/m3	1	4/21/2015 2:20:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59	ug/m3	1	4/21/2015 2:20:00 PM
Trichloroethene	< 0.21	0.21	ug/m3	1	4/21/2015 2:20:00 PM
Vinyl chloride	< 0.10	0.10	ug/m3	1	4/21/2015 2:20:00 PM

Qualifiers: \*\* Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

JN Non-routine analyte. Quantitation estimated.

S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected

E Value above quantitation range

J Analyte detected at or below quantitation limits

**Date:** 22-Apr-15

ND Not Detected at the Reporting Limit

*** By signing Centek Lab	Received at Lab by:	Relinquished by:	Sampled by:	21							5	£	70F6-55-71	Sample ID	Same Day	Next Day by 5pm	2 Business Days	3 Business Days	4 Business Days	umaround Time:		Ja Ja	A. Charles Corner Const.	Centek Laboratories		
By signing Centek Labs Chain of Custody you are accepting Centek Labs	on (m/a		Thoras Bohlen								7		5 1/1/10/30/5	Date Sampled	200%	150% 4/4/1/2	75%	50%	25%	Check Rush TAT Due One Surcharge % Date:	www.CentekLabs.	315-431-9730	Syracuse NY 13206	143 Midler Park Drive	Centek Chain of Custody	
T	<u> </u>		Signature	2		WALES OF THE STATE					3/1/0/0/1/5	89111 9811		Canister Regulator Number Number	Phone: 7/6 6/5-			e, Zip <u>B</u> <sub>17</sub> £4	Address: SSS III			Vapor Intrusion & IAQ			Custody	
Jerms and Conditions listed on the reverse side.	De le		o The								I	4	78-15-	or Analysis Request er	1300 3 sec. 00 m	THE TO SELLEN		J.ソー /4/5	ナラッチを表	reotains mental		Quote # Q- SP /	PO#.	Project: 31, 00,566	7	Kochobur P
on the reverse side.	4-3/15 Work Order # (1) 040 69	For LAB USE ONLY	Halles Courier: Circle ONE Halles FedEx (IPS Pickup@ropoft)								 1/ 湖に (1930 - J7%) / 5	LIST FROM -39" # 1-6	> 105E SELECT 43"14/-5	Comments Vасиит Start/Stop	Phone:			City, State, Zip	Address:	Check Here If Same: 🔀		Tug/M3+TCE 25	N Jug/M3 Level II	<u> 5668 年 第 7 日                                </u>	Detection Limit Report Level	MEG

APPENDIX E

**LIMITATIONS** 



#### GEOHYDROLOGICAL LIMITATIONS

#### Use of Report

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

#### Standard of Care

- 2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
- 3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
- 4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

#### Subsurface Conditions

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.

April 2012 PAGE 1

6. Water level readings have been made in test holes (as described in the Report) and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

#### Compliance with Codes and Regulations

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

#### Screening and Analytical Testing

- 8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
- 9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
- 10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

#### Interpretation of Data

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

#### Additional Information

12. In the event that the Client or others authorized to use this report obtain information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

#### Additional Services

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

April 2012 PAGE 2