

### SITE MANAGEMENT PLAN

### Former Kleener King Dry Cleaner Facility 1610 Bathgate Avenue, Bathgate Industrial Park, Bronx, NY NYSDEC Site Number 203049

### **Prepared for:**

**New York City Economic Development Corporation** 

One Liberty Plaza New York, NY 10006

### Prepared by:

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November 20th, 2025

#### CERTIFICATION STATEMENT

I \_\_Eric D. Stucker \_\_certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and Green Remediation (DER-31).

Eric Stucker P.E

November 20, 2025 DATE



### **Site Management Plan**

New York City Economic Development Corporation

Former Kleener King Dry Cleaner
Facility
1610 Bathgate Avenue, Bathgate Industrial Park, Bronx, NY
NYSDEC Site Number 203049

#### November 2025

#### A. Introduction and Background

A sub-slab depressurization system (SSDS) was installed at the former Kleener King Dry Cleaner Facility (Site) located at 1610 Bathgate Avenue, in the Bronx, New York in May 2009<sup>1</sup>. The Site is currently identified by the New York State Department of Environmental Conservation (NYSDEC) Site Number 204049. The Site is currently owned by The New York City Department of Citywide Administration Services (DCAS) and is operated by the New York City Economic Development Corporation (NYC EDC). The SSDS is split into two identically installed systems, with one controlling the east side of the building and the other controlling the west side of the building. The SSDS is designed to prevent soil vapor below the floor slab from infiltrating the indoor air space of the building. This Site Management Plan (SMP) describes the Operation, Maintenance, and Monitoring (OM&M) procedures for the SSDS and was prepared in accordance with Section 4 of the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October, 2006, with updates).

#### **Previous Investigations**

A Remedial Investigation Report (RIR) dated September 2008 identified the primary contaminants of concern at the Site as Tetrachloroethene (PCE) and its decomposition products. Other compounds, including polycyclic aromatic hydrocarbons (PAHs), and metals, were detected at concentrations above their respective NYSDEC criteria for soil and groundwater, but they were determined to not be attributable to past operations and activities at the Site. The contaminants of concern are summarized as follows:

Soil – No chlorinated solvents were detected in surface soils or sediments above the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives. The highest observed concentration was 0.18 mg/kg for PCE, located in subsurface soil at MW-10 at the northwest corner of the Site.

Groundwater - Several chlorinated solvents were detected above the Division of Water

<sup>&</sup>lt;sup>1</sup> Mitigation Tech installed the SSDS in May 2009. Mitigation Tech is located at 55 Shumway Road, Brockport, NY 14420. Nicholas Mouganis (EPA listing # 15415-I; NEHA ID# 100722) of Mitigation Tech should be contacted for service

Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA Groundwater Effluent Limitations. PCE was detected at concentrations as high as 12  $\mu$ g/L, cis-1,2-Dichloroethene was detected at concentrations as high as 17  $\mu$ g/L, and Trichloroethene (TCE) was detected at concentrations as high as 38  $\mu$ g/L. The TOGS 1.1.1 Class GA standard for each compound is 5  $\mu$ g/L.

Soil Vapor – Soil vapor investigations were completed at the Site in April 2006, April 2007, September 2007, and January 2008. These investigations were summarized and submitted to PANYNJ as a Soil Vapor Intrusion Investigation Report, dated September 2008. The most recent investigation identified concentrations of chlorinated solvents below the building (sub-slab) above the New York State Department of Health (NYSDOH) guidance values, as well as indoor air samples at values which warranted monitoring or mitigation. Sub-slab PCE concentrations recorded in January 2008 ranged from 36  $\mu$ g/m³ to 17,000  $\mu$ g/m³. Seven of the fourteen monitoring locations detected PCE at concentrations above 1,000  $\mu$ g/m³, which requires mitigation regardless of indoor air concentrations. Indoor air PCE concentrations recorded in January 2008 ranged from below the laboratory reporting limit (ND) at 3 locations to 88  $\mu$ g/m³. Two of the fourteen monitoring locations detected TCE at concentrations above 60  $\mu$ g/m³, which requires mitigation regardless of indoor air concentrations. Indoor air TCE concentrations recorded in January 2008 ranged from ND to 51  $\mu$ g/m³.

A summary of past sample data exceedances can in the tables, included as **Attachment 3** and the exceedance figures, included as **Attachment 4**.

#### Past Site Activity

The Site was formerly occupied by a commercial dry-cleaning facility, Kleener King, which operated from approximately 2001 to 2006. Following closure of the business and abandonment of the facility in 2006, The Site was owned by The Port Authority of New York and New Jersey (PANYNJ) and leased by a food manufacturer, Terrafina, LLC. Terrafina's LLC's lease of the Site building expired at the end of 2018 and the building has been unoccupied since 2018.

Following remedial investigation and subsequent installation of the SSDS, an SMP was developed and approved by the New York State Department of Environmental Conservation (NYSDEC) dated January 2010. An updated OM&M Plan was prepared by PANYNJ and submitted to NYSDEC in November 2016, following SSDS maintenance work performed by Mitigation Tech (the SSDS installer). In the time between the 2010 SMP and the 2016 OM&M Plan, the fourteen (14) sub-slab pressure field extension monitoring points, which were installed to finalize system design and equipment settings, were closed and monitoring at these locations has ceased.

The objectives of this plan are to ensure and document that the SSDS continues to operate properly and function effectively. The following provides details on the OM&M activities that will be conducted quarterly (every 3 months) and every 12 to 18 months. Routine activities, such as inspection of the vacuum indicator gauges, further discussed below, may also be conducted by the building tenant/occupants. Collection of samples for laboratory analysis is not a requirement of this OM&M plan but may be conducted at NYC EDC or NYSDEC's discretion.

#### B. Operation, Maintenance, and Monitoring Procedures

#### **Routine Monitoring:**

- 1. Building tenants/occupants/operators will be responsible for the day-to-day activities to ensure the SSDS is operating. Activities will comprise the following:
  - a. Monthly site walks/checks for cracks or leaks through which soil vapor could be released.
  - b. Regular checks of the manometers to ensure the system is functioning within acceptable parameters.
  - c. Reporting of any changes to structural conditions at the Site to NYC EDC
  - d. Regular checks of the electrical system powering the SSDS.

#### **Quarterly Activities:**

2. Quarterly telephone interviews or email correspondence with designated tenants/occupants/operators shall be performed by the owner to ensure the SSDS is operating effectively. Interview appropriate tenants/occupants to seek comments and their observations regarding the operation of the SSDS. Normal system operation requires unchanged structural conditions. Any changes should be brought to the immediate attention of the NYC EDC so that impacts on the SSDS can be evaluated and addressed, if necessary.

#### Activities Every 12 to 18 Months:

- 1. Designated OM&M personnel should become familiar with the SSDS. The SSDS targets both the eastern and western portions of the building. The SSDS consists of six sub-slab suction points, six 3-inch diameter PVC risers, two overhead trunk pipes, two vacuum indicator gauges, two roof-mounted vacuum fans, and other components designed to create vacuum beneath the floor slab. The approximate locations of the system components are illustrated on **Figure 1**.
- 2. All vacuum fans should be left in continuous operation, except for emergency conditions. These vacuum fans restart automatically in the event of power loss. Each vacuum fan has an on/off switch on the fan unit mounted on the roof. **Figure 2** presents a picture of one of the vacuum fan units on the roof. The vacuum fan units are hard-wired onto the same electrical supply as the "Exit" signs that are above all emergency exit doors: circuit #31 in the middle electrical panel located outside the east wall of the boiler room. **Figure 3** presents pictures of the electrical panel that is associated with the SSDS. In the event of unusual vacuum fan noise, failure to start, or repeated circuit breaker trips, turn vacuum fan off and notify NYC EDC. A cut sheet of the SSDS roof-mounted fans (RadonAway model RP265) is presented for reference as **Attachment 1**.
- 3. Inspect vacuum indicator gauges (Easy Read Dynameter Vacuum Gauge) to verify that observed values are within 0.1 unit of 0.5-inches water column. The vacuum gauges provide visual indication that the SSDS is either operating properly or has failed. The vacuum gauges are inspected by observing the meniscus level of colored fluid in the U-tube. Two vacuum indicator gauges exist, each gauge is located 6 feet above the floor on the eastern and

western center PVC riser pipes. **Figure 4** presents photographs of each vacuum indicator gauge for reference. Clear tubing (shown on the upper left-hand corner of **Figure 4**) is connected between the PVC riser and the vacuum gauge. Ensure that the tubing is connected, as shown, if the observed vacuum gauge values are not correct. The colored fluid in the Utube is an oil and should not evaporate quickly. Contact NYC EDC to replace the vacuum gauge or adjust the vacuum gauge scale if substantial evaporation is observed.

- 4. The OM&M personnel will conduct a comprehensive inspection every 12 to 18 months. Maintenance activities will also be conducted when warranted. These activities will include the following, at a minimum:
  - Visually inspect the physical condition of the SSDS (e.g., vacuum fan, piping, vacuum gauge, labeling, etc.). Inspect the condition of all components and confirm proper operation. Check that all pipe brackets are tight, there are no cracks or warping of the PVC pipes, and that the PVC pipes are firmly joined together. Check that there is no damage or tampering with the SSDS since the last inspection.
  - Identify any leaks and perform repairs as necessary. Conduct a visual inspection of all surfaces to which vacuum is applied for integrity such as cracks on floor surface, subsidence of the suction points through the floor, deterioration of couplings or piping, etc. As per Section 4.3.1(a) of the NYSDOH guidance, "Reasonable and practical actions should be taken to identify and fix leaks. Any leaks identified should be repaired/sealed.
  - Inspect vacuum fan discharge points to verify that no air intakes have been located nearby. The access to the roof is via a hatch located in a small access room in the northwest corner of the building on the second floor.
- 5. All inspection findings and maintenance activities are to be documented. Photographs will also be taken to augment the documentation.

#### C. Termination of OM&M Activities

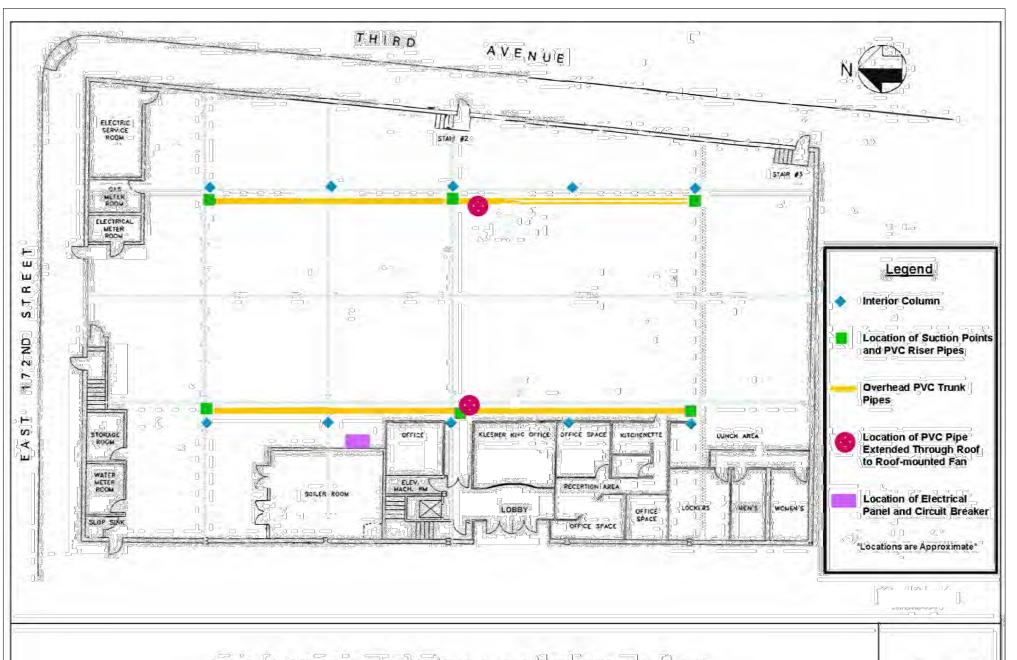
The SSDS will not be turned off and the OM&M activities will not be terminated until NYSDOH and NYSDEC have received, and have been given the opportunity to comment on, a proposal to turn off the SSDS.

The Site Owner may propose that OM&M activities be discontinued and that the SSDS be decommissioned pending additional soil vapor testing below the building (sub-slab), collected in conjunction with indoor air sampling. Results for each contaminant of concern, particularly PCE and TCE, must meet the criteria to warrant "No further action" as established in their respective NYSDOH Soil Vapor/Indoor Air Matrices (A, B, or C).

For example, PCE must be detected at a sub-slab concentration below 1,000  $\mu g/m^3$  with an indoor air concentration below 3  $\mu g/m^3$ . Alternatively, sub-slab PCE must be detected below 100  $\mu g/m^3$  with an indoor air concentration below 10  $\mu g/m^3$ , as per NYSDOH Matrix B. TCE must be detected at a sub-slab concentration below  $60\mu g/m^3$  with an indoor air concentration below 0.2  $\mu g/m^3$ . Alternatively, sub-slab TCE must be detected below 6  $\mu g/m^3$  with an indoor air concentration below 1  $\mu g/m^3$ , as per NYSDOH Matrix A.

As per NYSDOH guidance, the Site Owner may also propose that OM&M activities be discontinued and that the SSDS be decommissioned if a representative number of samples collected below the building (sub-slab), in conjunction with indoor and outdoor air samples, show that indoor air quality is not being affected by turning off the system. Under these conditions, it is recommended that the SSDS remain in place and operating, due to seasonal variations affecting soil vapor/system pressure, and/or wear and tear on the facility which could cause increased exposure to contaminants of concern in the Site's indoor air. The potential presence of Radon should also be considered before proposing the decommissioning of the SSDS.

# Figure 1 SSDS Site Layout



Existing Sub-Slab Depressurization System
Former Kleener King Dry Cleaner Facility
1610 Bathgate Avenue, Bathgate Industrial Park, Bronx, NY

Figure 1

# Figure 2 Roof-Mounted Fan



One of two sub-slab depressurization system vacuum fan units installed on the roof

### Sub-Slab Depressurization System Vacuum Fan Unit On Roof Former Kleener King Dry Cleaner Facility

1610 Bathgate Avenue, Bathgate Industrial Park, Bronx, NY

Figure 2

# Figure 3 SSDS Electrical Panel





The sub-slab depressurization system circuit breaker is located on the center panel outside the boiler room

The sub-slab depressurization system circuit breaker is number 31, adjacent to the green markings on the panel

# Sub-Slab Depressurization System Circuit Breaker Location Former Kleener King Dry Cleaner Facility

1610 Bathgate Avenue, Bathgate Industrial Park, Bronx, NY

Figure 3

# Figure 4 Vacuum Indicator Gauges



Sub-slab depressurization system vacuum indicator gauge attached to Western PVC riser



Sub-slab depressurization system vacuum indicator gauge attached to Eastern PVC riser

# Sub-Slab Depressurization System Vacuum Indicator Gauge Former Kleener King Dry Cleaner Facility

Bathgate Industrial Park, Bronx, NY

Figure 4

# Attachment 1 Roof-Mounted Fan Cut Sheet



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#### **D** PRODUCTS

Fan Replacement Guide

**RP Series** 

XP/XR Series

**GP Series** 

GP 500

**HS Series** 

AlRaider Series

System Monitors/Alarms

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#### **RP Series**

Designed especially for radon mitigation, RadonAway's RP Series fans provide superb performance and are ultra-quiet and attractive. They are ideal for most active subslab radon mitigation systems. Choice of model is dependent on building characteristics and should be made by a radon professional.



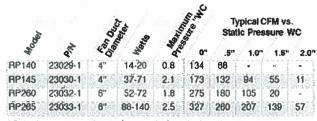
#### Features:

- · Five-year limited warranty
- · Quiet and attractive
- · Thermally protected
- Motorized impeller
- · ETL Listed for indoor or outdoor use
- · Meets all electrical code requirements
- · Rated for commercial and residential use

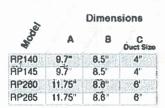
#### Additional Fan information:

Downloadable Fan Specifications/Sales Sheet (PDF format)

Downloadable Fan Installation Instructions (PDF format)



<sup>\*</sup>Calculate your estimated annual electrical cost.







# Attachment 2 Tel Tru T-T Puffer 2 Smoke Pen Product Sheet and MSDS



#### E. Vernon Hill, Inc. 3696 Broadway • Suite 355 North Bend OR 97459 707-584-9384 - Fax: 707-584-8712

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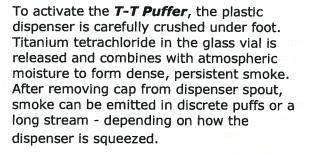
Tel-Tru™ T-T Puffer™ produces puffs of smoke on

demand for environmental air motion studies. Puffer offers many of the features of both the classic T-T Smoke Stick and T-T Smoke Gun combined.

After activation, each *T-T Puffer* generates from 100 to 200 or more puffs of highly visible, long lasting white smoke. To use Puffer, simply point and squeeze.

The T-T Puffer consists of a disposable flexible plastic dispenser with a small glass vial of titanium tetrachloride inside. The vial is cushioned to help prevent breakage until

#15-110 and #15-120 Tel-Tru™ T-T Puffer ready to use. Shelf life of a *T-T Puffer* before being activated is indefinite (with proper storage.)



- Visualize Air-Flow Motion
- Measure Low Air Velocities
- **Detect Leaks**
- Balance Air Handling Systems
- Hundreds of Smoke Puffs
- Use All Day Up to 24 Hours

Once activated, the *T-T Puffer* can be used for up to 24-hours. Smoke is conserved between applications by replacing the cap.

**T-T Puffer** applications include air pollution studies, balancing air flow patterns in heating, ventilating and air conditioning systems, and checking the discharge flow from exhaust systems, dryers, hoods, and stacks. Very low air velocities can be measured accurately by



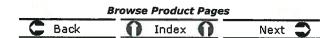
clocking puffs over a measured distance with a stop watch. **T-T Puffer** is also suitable for a variety of leak detecting applications.

**T-T Puffer** is 5-3/4" high overall including the spout. Diameter is 1-7/8". Weight is 1.1 oz. Order singles or in 10-packs.

Note that titanium tetrachloride is a corrosive. Read and understand all  $\underline{\mathsf{safety}}$  information before using.

Description	Item #	Price US\$
T-T Puffer™, Single-Unit	15-110	\$11.25 ea.
T-T Puffer™, Ten-Pack	15-120	\$99.25 ea.

<u>Call</u> for shipping charges. All prices subject to change without notice. Read and understand all <u>safety information</u> before use. See <u>Complete Price List</u>.



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### MATERIAL SAFETY DATA SHEET (MSDS)



VERNON 3696 Broadway Ste 355 North Bend OR 97459 Phone: (707) 584-9384 Fax: (707) 584-8712

www.evhill.com info@evhill.com Revision Date: 9/15/2008 For the following products:

#15-049 Smoke Sticks; #15-080 T-T Dura-Puffer™

#15-092 T-T Smoke Gun Kit;

#15-093 T-T Smoke Refills; #15-110 T-T Puffer ™

Also read and understand the separate Product Information sheet before using or handling these products.

#### SECTIONS I & II: Material Identification and Ingredients

Material Name: Titanium Tetrachloride CAS Registry Number: 7550-45-0 Ingredients: TiCl<sub>4</sub> - 99.0% to 100%

UN Number: 1838 Chemical Family: Titanium Salts Other Designations: Titanic Chloride

Chemical Formula: TiCl,

#### **SECTION III: Hazards Identification**

Appearance and Odor: Clear liquid with a sharp and irritating odor.

Statement of Hazards: Danger! Causes Severe eye, skin and respiratory tract burns. May be fatal if inhaled. May cause lung damage. Harmful if swallowed. Contents under pressure. Contact with water or moist air liberates toxic and corrosive hydrogen chloride.

Fire & Explosion Hazards: This product is not defined as flammable or combustible. However, this product may support combustion and decompose under fire conditions to produce toxic materials such as hydrogen chloride and chlorine gases. It is not sensitive to static discharge. Primary Route of Exposure: Skin contact and inhalation are the primary routes of exposure to this product.

Inhalation Acute Exposure: Inhalation of vapors may cause inflammation of the respiratory tract, damage to the lungs, and possibly death. This is a poison inhalation hazard by DOT criteria.

Skin Contact - Acute: Skin contact can cause sever irritation with redness and edema.

Eye Contact - Acute: Eye contact may cause severe irritation or burns. May cause eye damage if not flushed out immediately.

Ingestion - Acute: Poison by ingestion. Swallowing will cause burns of the mouth, throat and stomach.

#### **SECTION IV: First Aid Measures**

Inhalation: Remove victim to fresh air while protecting yourself from exposure with an appropriate respirator. Remove any contaminated clothing to prevent further inhalation exposure. Use gloves to avoid contaminating yourself. It not breathing, clear victim's airway and start artificial respiration. Avoid inhaling expired air. Artificial respiration may be supplemented by the use of a bag-mask respirator or manually triggered oxygen supply capable of delivering one liter per second or more. If victim is breathing, supplemental oxygen may be given from a demand-type or continuous-flow inhaler, preferably with a physician's advice. Monitor breathing and pulse. If victim stops breathing, restart artificial respiration. If heart has stopped, begin cardiopulmonary resuscitation immediately. Keep person warm and at rest. Get medical attention immediately.

Skin Contact: Using a dry cloth, immediately wipe away excess material from the skin while removing all contaminated clothing and shoes. Under a safety shower, flush affected area with large quantities of water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Get medical attention immediately. Discard contaminated clothing and shoes.

Eye Contact: Immediately flusheyes with large quantities of running water for a minimum of 15 minutes. If the victim is wearing contact lenses, remove them. Take care not to contaminate the victim's healthy skin and eyes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids. Do not let victim rub eye(s). Do not attempt to neutralize with chemical agents. Get medical attention immediately. Oils or ointments should not be used at this time. Continue flushing for an additional 15 minutes if a physician is not immediately available.

Ingestion: If swallowed, immediately give several glasses of water, but do not induce vomiting. This material is corrosive. If vomiting occurs, give water again. Get medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

Medical Conditions Aggravated: There are no data available that address medical conditions that are generally recognized as being aggravated by exposure to this product. Note to Physician: No specific antidote is known. Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical conditions.

#### **SECTION V: Fire Fighting Measures**

Flash Point: Not Determined Flash Method: N/A

Upper Explosion Limit: Not Determined

Lower Explosion Limit: Not Determined

NFPA Ratings: Health- 3; Flammability - 0; Reactivity - 2; Other - None Extinguishing Media: Small fires: Use dry chemical or carbon dioxide extinguishing agents. Large fires: Flood with water. Large quantities are required to scrub out the liberated hydrogen chloride and wash away the TiCl, residue. Contaminated buildings, areas and equipment must not be used until they are properly decontaminated.

Fire Fighting Procedures: Products of combustion are irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema. Symptoms may be delayed several hours or longer depending upon the extent of the exposure. As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate non-essential personnel. Fire fighters should wear self-contained breathing apparatus with full face-plate and impervious protective clothing. Apply water spray to cool fire exposed containers. Do not get water inside containers as a vigorous reaction may

Fire & Explosion Hazards: This product is not defined as flammable or combustible. However, the product may support combustion and decompose under fire conditions to produce toxic materials such as hydrogen chloride and chlorine gases. It is not sensitive to static discharge.

Other Fire & Explosion Hazards: Reacts with water to release hydrogen chloride, titanium dioxide and possibly chlorine gas. Hazardous Products/Combustion: Oxides of titanium and hydrogen chloride gas are produced by the combustion of this product.

#### SECTION VI: Handling, Storage, Spill and Disposal Procedures

Handling: Wear protective clothing including a face shield and goggles or similar protection when handling this product to avoid eye and skin contact. Wash thoroughly after handling. Emptied container may retain product residues. Follow all warnings and precautions even after container is emptied. Storage: Store away from foodstuffs and animal feed. Containers should be stored in a cool, dry, well-ventilated area away from flammable or oxidizing materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container. Containers should be opened only in a dry atmosphere.

Maximum Storage Temperature: Not Determined

Spills and Leaks: All personnel involved in spill cleanup should follow good industrial hygiene practices. Wear protective clothing to prevent eye and skin contact. Use adequate ventilation and/or wear a NIOSH approved organic vapor respirator with dust, mist, and fume filter to minimize

Auto Ignition Temp.: Not Determined

#### SECTION VI: Handling, Storage, Spill and Disposal Procedures (Continued)

inhalation exposure. Stop source of spill if this is possible without being injured. Small spills should be absorbed with a suitable, inert material (e.g., sand or earth). Remove the absorbed material, and place in an appropriate chemical waste container for disposal. Flush the spill area with detergent and water. Large spills should be diked to prevent spreading. Pump spilled material to salvage according to a predetermined plan. Remove residual material, and flush spill area with detergent and water.

Disposal: Dispose of in a manner compliant with all Federal, State and local laws and regulations.

#### **SECTION VII: Exposure Controls/Personal Protection**

Respiratory Protection: Where there is potential for inhalation exposure in excess of any given exposure limits, wear a NIOSH approved air purifying respirator equipped with organic vapor/acid gas cartridges and high efficiency filters, and an air supplied mask or a self-contained breathing apparatus. Skin Protection: Skin contact with liquid or its aerosol must be prevented through the use of impervious clothing, impervious gloves and footwear selected with regard for use condition exposure potential. Safety showers, with quick opening valves which stay open, should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated or heat-traced lines to prevent freeze-ups in cold weather. Eye Protection: Eye contact with liquid or aerosol must be prevented through the use of chemical safety goggles or a face shield selected with regard for use condition exposure potential. Eye wash fountains or other means of washing the eyes with a gentle flow of water should be readily available in all areas where this product is handled or stored. Water should be supplied through insulated and/or heat-traced pipes to prevent freeze-up in winter. Ventilation Protection: Sufficient good general ventilation should be provided to keep concentration below the exposure limit. All work with samples should be conducted in a hood.

Other Protection: During the development of safe handling procedures, consideration should be given to the need for cleaning of equipment and piping systems to render them nonhazardous before maintenance and repair activities are performed. Waste resulting from these procedures should be handled in an environmentally safe manner. All food and smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material. Before eating, drinking or smoking, hands and face should be thoroughly washed.

Applicable Exposure Limits (in MG/M3)

Reg. Agency	PEL	TLV	<u>TWA</u>	<u>STEL</u>	<b>CEIL</b>	Reg. Agency	PEL	TLV	<b>TWA</b>	STEL	CEIL
OSHA	N/D	N/D	N/D	N/D	N/D	ACGIH	N/D	N/D	N/D	N/D	N/D
NIOSH	N/D	N/D	N/D	N/D	N/D	SUPPLIER	N/D	N/D	0.5000	N/D	N/D

CEIL=Ceiling Exposure Limit; PEL=Permissible Exposure Limit; STEL=Short Term Exposure Limit; TLV Threshold Limit Value; TWA=Time Weighted Average; N/D = Not Determined

#### **SECTION VIII: Stability and Reactivity**

Stability: This product reacts violently with water resulting in the formation of toxic gases.

Incompatibilities: This product is water-reactive. Polymerization: Hazardous polymerization is not expected to occur.

Decomposition: Hydrogen chloride is a product of combustion and/or decomposition. Under fire conditions, thermal decomposition products may include toxic chlorine gas, titanium oxychioride and titanium oxides.

Conditions to Avoid: Care should be taken to prevent moisture condensation in the container.

#### **SECTION IX: Toxicological Information**

Toxicological - Inhalation: The acute inhalation LC50 is 0.4 mg/L in rats for a 4 hour exposure. The cause of death appeared to be pumonary edema. Repeated inhalation exposures in rats to 0.04 mg/L for 6 hours per day 5 days per week for four weeks produced decreased weight gain, inflammation of the respiratory tract, pulmonary fibrosis and 8% mortality. Similar treatment at 0.005 mg/L showed no treatment related effects.

Inhalation Chronic Exposure: Prolonged and/or repeated inhalation may cause severe respiratory irritation, pulmonary edema, respiratory tract inflammation, and pulmonary fibrosis. This material is a poison inhalation hazard.

Toxicological - Dermal: The acute dermal LD50 is 3160 mg/kg in rabbits. A single dermal application of 1000 mg/kg did not produce symptoms of toxicity in rabbits. Local effects included moderate to severe necrosis and edema.

Skin Contact - Chronic: Skin contact may cause severe irritation including moderate to severe necrosis and edema.

Toxicological - Eye: This product is corrosive to the eyes.

Toxicological - Ingestion: The acute oral LD5O for this material is less than 464 mg/kg in male rats.

Ingestion - Chronic: Poison by ingestion. Ingestion will result in burns of the throat, esophogus, stomach and digestive tract.

Carcinogenicity/Mutagenicity: This product is not classified as a carcinogen by IARC, NTP, OSHA or ACGIH.

Reproductivie Effects: The reproductive toxicity of this product is not known.

Neurotoxicity: The neurotoxic effects of this product are not known.

Other Toxicological Effects: Titanium tetrachloride is not classified as a carcinogen by IARC, NTP or OSHA. However, in a lifetime inhalation test microscopic lung tumors were found in 5 of 150 rats exposed at 10 mg/m3 TiCl4. The authors concluded that the relevance to man of the type of lung tumor found in this study is highly questionable. In addition, a 1992 epidemiological study conducted by E. I. Dupont of workers exposed to titanium tetrachloride concluded that the risk of developing lung cancer was not significantly higher in the titanium tetrachloride exposed workers. Target Organs: Overexposure to this product may affect the skin, eyes, lung and upper respiratory tract.

#### **SECTION IX: Special Precautions and Comments**

Store in a cool, dry place. Store product in a place safe from being broken, dropped or crushed. Keep product out of the reach of children. Do not use or store around food or food products. Eating, drinking and smoking should be prohibited in areas where the product is stored or used. Before eating, drinking or smoking, hands and face must be thoroughly washed.

Product should be used only by those familiar with all safety documentation.

Note: For Physical Properties, additional Hazard Ratings and Ecological Data see separate Product Information sheet.

This MSDS is provided as a guideline for the use of our products only. E. Vernon Hill, Inc. disclaims responsibility for damage or injury resulting from the improper use of these products.

We believe all information given is accurate. It is offered in good faith, but without guarantee. Since

conditions of product use are beyond our control, all risks of use are assumed by the user. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents.

Ref. Akzo MSDS 11-085111 12/18/98-008

# **Attachment 3 Sampling Summary Tables**

#### **TABLE 1: SURFACE SEDIMENT SOIL EXCEEDANCES**

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO -	KKSS1		KKSS2		KKSS3		KKSS4		KKSS5		KKSS6		KKSS7
Sample Location					Surface Soil		Surface Soil		Surface Soil		Surface Soil	Τ	Surface Soil		Surface Soil	Π	Surface Soil
Sampling Date					5/8/2006		5/8/2006		5/8/2006		5/8/2006	T	5/8/2006		5/8/2006		5/8/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg		mg/kg										
COMPOUND	CAS#																
Semi-Volatile Organic Co	mpounds																
Benzo(a)anthracene	56-55-3	1	1	1	1.7		0.69	J	0.53	J	4.2	Т	19	П	5.9		1.1
Benzo(a)pyrene	50-32-8	22	1	1	1.4		0.72	J	0.57	J	3.9	Т	16		5		1.1
Benzo(b)fluoranthene	205-99-2	1.7	1	1	1.8		1.1	J	0.77	J	4.9	Т	21	П	6.9		1.5
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	0.72	J	0.33	J	0.22	J	2.1	1	6.2		2		0.5
Chrysene	218-01-9	1	3.9	1	1.4		0.74	J	0.5	J	3.8		18		5.6		1.1
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	0.31	J	0.17	J	0.14	J	0.86	J	2.6	J	0.9	J	0.2 J
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	0.94	J	0.52	J	0.35	J	2.6		8.4		2.8	T	0.6
m/p-Cresol	108-39-4	0.33	100	0.33	ND		ND		ND		ND	T	ND		ND	Ī	ND

#### Qualifiers

ND - The compound was not detected at the laboratory reporting limit.

Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

#### **TABLE 1: SURFACE SEDIMENT SOIL EXCEEDANCES**

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	KKSS8	KKSS9	KKSS10	KKSS11	KKSS12	KKSS13	KKSED2
Sample Location					Surface Soil	Sediment					
Sampling Date					5/8/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006	5/8/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#										
Semi-Volatile Organic Cor	npounds										
Benzo(a)anthracene	56-55-3	1	1	1	3.9	1.1	1.1	1.2	2.5	0.2 J	0.28 J
Benzo(a)pyrene	50-32-8	22	1	1	3.8	1	1.1	1.4	2.3	0.24 J	0.37 J
Benzo(b)fluoranthene	205-99-2	1.7	1	1	4.7	1.5	1.4	1.7	3.2	0.34 J	0.42 J
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	1.4	0.47	0.55	0.69	0.96	0.12 J	ND
Chrysene	218-01-9	1	3.9	1	3.6	1	1.1	1.2	2.3	0.24 J	0.45 J
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	0.75	J 0.17	J 0.23 J	0.24 J	0.53	0.05 J	ND
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	2.3	0.59	0.72	0.77	1.5	0.14 J	0.23 J
m/p-Cresol	108-39-4	0.33	100	0.33	ND	ND	ND	ND	ND	ND	0.92 J

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Protection of Groundwater Use	Bolded

#### **TABLE 1: SURFACE SEDIMENT SOIL EXCEEDANCES**

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO -	KKSED3	KKSED4	KKSED5	KKSED10
Sample Location					Sediment	Sediment	Sediment	Sediment
Sampling Date					5/8/2006	5/8/2006	5/8/2006	5/8/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#							
Semi-Volatile Organic Con	npounds							
Benzo(a)anthracene	56-55-3	1	1	1	1.9	0.28	J 0.84	J ND
Benzo(a)pyrene	50-32-8	22	1	1	2	0.3	J 0.81	J ND
Benzo(b)fluoranthene	205-99-2	1.7	1	1	3.1	0.61	J 1.4	<b>J</b> 0.15 J
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	0.8	0.2	J 0.44	J ND
Chrysene	218-01-9	1	3.9	1	2.5	0.51	J 1.2	J ND
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	0.37	J ND	0.2	J ND
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	1.1	0.3	J 0.58	<b>J</b> 0.19 J
m/p-Cresol	108-39-4	0.33	100	0.33	0.45	ND	ND	ND

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Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	SB-1 (12-14')	SB-1 (14-16')	SB-2 / MW-03 (16-18')	SB-2 / MW-03 (18-18.8')	SB-3 (4-6')	SB-3 (9-10.5')	SB-4 (2-4')
Sampling Date					7/21/2006	7/21/2006	7/24/2006	7/24/2006	7/20/2006	7/20/2006	7/26/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#										
Semi-Volatile Organic Co	mpounds										
Benzo(a)anthracene	56-55-3	1	1	1	ND	ND	ND	ND	5	ND	39
Benzo(a)pyrene	50-32-8	22	1	1	ND	ND	ND	ND	4.2	ND	37
Benzo(b)fluoranthene	205-99-2	1.7	1	1	ND	ND	ND	ND	5.4	ND	42
Benzo(g,h,i)perylene	191-24-2	1000	100	100	ND	ND	ND	ND	2.3	ND	25
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	ND	ND	ND	ND	2.1	ND	18
Chrysene	218-01-9	1	3.9	1	ND	ND	ND	ND	4.8	ND	36
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	ND	ND	ND	ND	0.69	J ND	6.5 J
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	ND	ND	ND	ND	2.2	ND	24
Metals											
Arsenic	7440-38-2	16	16	13	ND	ND	2.3	ND	4,5	ND	5.1
Barium	7440-39-3	820	400	350	31	15	31	37	180	18	510
Chromium	7440-47-3	19	110	30	7.7	ND	22	22	21	15	18
Copper	7440-50-8	1720	270	50	11	8.2	12	ND	45	25	29
Lead	7439-92-1	450	400	63	ND	ND	ND	ND	170	ND	280
Manganese	7439-96-5	2000	2000	1600							
Mercury	7439-97-6	0.73	0.81	0.18	ND	ND	ND	ND	0.27	ND	0.27
Nickel	7440-02-0	130	310	30	7.8	ND	12	9.2	16	12	11
Zinc	7440-66-6	2480	10000	109	22	45	27	27	140	32	340
Pesticides											
4,4-DDD	72-54-8	14	13	0.0033	ND	0.0084	ND	ND	0.025	ND	0.56
4,4-DDE	72-55-9	17	8.9	0.0033	ND	ND	ND	ND	0.0095	ND	0.072
4,4-DDT	50-29-3	136	7.9	0.0033	ND	ND	ND	ND	0.025	ND	0.32
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND	ND	ND	ND	0.16	ND	ND
delta-BHC	319-86-8	0.25	100	0.04	ND	ND	ND	ND	ND	ND	ND

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Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	SB-4 (4-5.5')		SB-5 / MW-02 (8-10')		SB-5 / MW-02 (18-20')		SB-6 / MW-01 (18-18.8')	s	B-6 / MW-01 (19-19.9')	SB-7 (12-14')		SB-7 (14-14.8')
Sampling Date					7/26/2006		8/8/2006		8/8/2006		7/27/2006		7/27/2006	7/28/2006		7/28/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	mg/kg		mg/kg
COMPOUND	CAS#															
Semi-Volatile Organic Co	mpounds															
Benzo(a)anthracene	56-55-3	1	1	1	3.1		0.51		0.079	J	ND		ND	0.16	J	0.39
Benzo(a)pyrene	50-32-8	22	1	1	3.5		0.5		0.075	J	ND		ND	0.16	J	0.38
Benzo(b)fluoranthene	205-99-2	1.7	1	1	3.9		0.67		0.093	J	ND		ND	0.19	J	0.44
Benzo(g,h,i)perylene	191-24-2	1000	100	100	2.5		0.4	J	0.046	J	ND		ND	0.11	J	0.25 J
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	1.6	J	0.27	J	0.045	J	ND		ND	0.071	J	0.18 J
Chrysene	218-01-9	1	3.9	1	3.2		0.49		0.09	J	ND		ND	0.15	J	0.36
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	0.65	J	0.12	J	ND		ND		ND	ND		0.066 J
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	2.6		0.39	J	0.05	J	ND		ND	0.086	J	0.22 J
Metals																
Arsenic	7440-38-2	16	16	13	2.8		2.8		ND		ND		ND	3.7		ND
Barium	7440-39-3	820	400	350	100		13		42		390		770	67		74
Chromium	7440-47-3	19	110	30	26		23		16		57		47	25		23
Copper	7440-50-8	1720	270	50	22		20		17		44		22	30		32
Lead	7439-92-1	450	400	63	110		66		6.2		6.1		ND	19		34
Manganese	7439-96-5	2000	2000	1600												
Mercury	7439-97-6	0.73	0.81	0.18	0.24		ND		ND		ND		ND	0.12		ND
Nickel	7440-02-0	130	310	30	15		17		15		28		24	25		21
Zinc	7440-66-6	2480	10000	109	110		80		42		97		64	43	$oxed{oxed}$	55
Pesticides																
4,4-DDD	72-54-8	14	13	0.0033	0.14		ND		ND		ND		ND	ND		ND
4,4-DDE	72-55-9	17	8.9	0.0033	0.019		0.012		ND		ND		ND	ND		ND
4,4-DDT	50-29-3	136	7.9	0.0033	0.073		0.025		ND	1	ND		ND	ND		0.0087
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND		0.027		ND	T	ND		ND	ND		ND
delta-BHC	319-86-8	0.25	100	0.04	ND		ND		ND	T	ND		ND	ND		ND

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Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	SB-8 (22-24')	SB-8 (24-25.3')	SB-9 / MW-04 (20-22')	SB-9 / MW-04 (22-22.8')	SB-10 (6-8')	SB-10 (24-25.3')	SB-11 (4-5.4')	SB-12 (22-24')
Sampling Date					8/1/2006	8/1/2006	8/1/2006	8/1/2006	8/3/2006	8/3/2006	8/3/2006	8/4/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#											
Semi-Volatile Organic Co	mpounds											
Benzo(a)anthracene	56-55-3	1	1	1	ND	ND	ND	ND	4	ND	ND	ND
Benzo(a)pyrene	50-32-8	22	1	1	ND	ND	ND	ND	5.3	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	1.7	1	1	ND	ND	ND	ND	6.6	ND	ND	ND
Benzo(g,h,i)perylene	191-24-2	1000	100	100	ND	ND	ND	ND	3.5	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	ND	ND	ND	ND	2.5	ND	ND	ND
Chrysene	218-01-9	1	3.9	1	ND	ND	ND	ND	4.1	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	ND	ND	ND	ND	0.95	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	ND	ND	ND	ND	4	ND	ND	ND
Metals												
Arsenic	7440-38-2	16	16	13	ND	ND	ND	ND	3.3	ND	3.5	4.5
Barium	7440-39-3	820	400	350	29	39	18	15	100	28	200	120
Chromium	7440-47-3	19	110	30	13	18	7.5	8.4	21	7.8	48	46
Copper	7440-50-8	1720	270	50	20	22	7.5	12	18	14	19	43
Lead	7439-92-1	450	400	63	ND	ND	ND	ND	24	ND	ND	13
Manganese	7439-96-5	2000	2000	1600								
Mercury	7439-97-6	0.73	0.81	0.18	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	7440-02-0	130	310	30	14	17	9.4	8.6	15	11	24	47
Zinc	7440-66-6	2480	10000	109	38	36	27	26	62	17	73	100
Pesticides												
4,4-DDD	72-54-8	14	13	0.0033	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DDE	72-55-9	17	8.9	0.0033	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DDT	50-29-3	136	7.9	0.0033	ND	ND	ND	ND	0.0087	ND	ND	ND
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	319-86-8	0.25	100	0.04	ND	ND	ND	ND	ND	ND	ND	ND

#### Qualifiers

ND - The compound was not detected at the laboratory reporting limit.

Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	SB-12 (24-24.8')	SB-13 (24-26')	SB-13 (26-27.7')	SB-14 (16-18')	SB-14 (18-18.8')	SB-15 (20-22')	SB-15 (22-23.4')	SB-17 (16-18')
Sampling Date					8/4/2006	# 8/7/2006	8/7/2006	8/2/2006	8/2/2006	8/4/2006	8/4/2006	8/7/2006
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#											
Semi-Volatile Organic Cor	npounds											
Benzo(a)anthracene	56-55-3	1	1	1	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	22	1	1	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	1.7	1	1	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	191-24-2	1000	100	100	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	1	3.9	1	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	ND	ND	ND	ND	ND	ND	ND	ND
Metals												
Arsenic	7440-38-2	16	16	13	3.2	ND	ND	ND	ND	ND	ND	ND
Barium	7440-39-3	820	400	350	320	20	30	26	29	64	30	46
Chromium	7440-47-3	19	110	30	37	6.7	7.9	15	15	28	11	21
Copper	7440-50-8	1720	270	50	54	8.1	9.7	16	17	22	11	16
Lead	7439-92-1	450	400	63	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	7439-96-5	2000	2000	1600								-
Mercury	7439-97-6	0.73	0.81	0.18	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	7440-02-0	130	310	30	96	7.3	8.7	14	14	20	9.3	15
Zinc	7440-66-6	2480	10000	109	70	20	23	28	36	46	18	27
Pesticides												
4,4-DDD	72-54-8	14	13	0.0033	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DDE	72-55-9	17	8.9	0.0033	ND	ND	ND	ND	ND	ND	ND	ND
4,4-DDT	50-29-3	136	7.9	0.0033	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	319-86-8	0.25	100	0.04	ND	ND	ND	ND	ND	ND	ND	ND

#### Qualifiers

ND - The compound was not detected at the laboratory reporting limit.

Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Residential w/CP-51 (10/10) (6 NYCRR	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	SB-17 (18-20')	SB-18 / MW-05 (14-16')	SB-18 / MW-05 (34-36')	SB-19 / MW-06 (14-16')	SB-19 / MW-06 (16-18')	SB-20 / MW-07 (4-6')	SB-20 / MW-07 (16-18')	MW-10 (4-6')
Sampling Date					8/7/2006	1/15/2007	1/15/2007	1/16/2007	1/16/2007	1/12/2007	1/12/2007	2/28/2007
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#											
Semi-Volatile Organic Co	mpounds											
Benzo(a)anthracene	56-55-3	1	1	1	ND	ND	ND	ND	ND	2.7	ND	7.8
Benzo(a)pyrene	50-32-8	22	1	1	ND	ND	ND	ND	ND	3	ND	7
Benzo(b)fluoranthene	205-99-2	1.7	1	1	ND	ND	ND	ND	ND	4.6	ND	7
Benzo(g,h,i)perylene	191-24-2	1000	100	100	ND	ND	ND	ND	ND	1.9	ND	5
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	ND	ND	ND	ND	ND	1.4	J ND	6.1
Chrysene	218-01-9	1	3.9	1	ND	ND	ND	ND	ND	3.3	ND	8.4
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	ND	ND	ND	ND	ND	0.55	J ND	2
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	ND	ND	ND	ND	ND	1.7	J ND	4.7
Metals												
Arsenic	7440-38-2	16	16	13	ND	ND	ND	ND	ND	14	ND	4.8
Barium	7440-39-3	820	400	350	22	46	55	43	38	590	85	1000
Chromium	7440-47-3	19	110	30	13	25	17	9.2	21	28	25	18
Copper	7440-50-8	1720	270	50	ND	22	22	21	20	97	36	44
Lead	7439-92-1	450	400	63	ND	ND	6.6	ND	ND	440	6.7	380
Manganese	7439-96-5	2000	2000	1600		350	430	350	270	1700	290	-
Mercury	7439-97-6	0.73	0.81	0.18	ND	ND	ND	ND	ND	0.23	ND	0.36
Nickel	7440-02-0	130	310	30	8.1	18	25	11	12	63	28	13
Zinc	7440-66-6	2480	10000	109	16	46	92	32	35	1200	70	650
Pesticides												
4,4-DDD	72-54-8	14	13	0.0033	ND	ND	ND	ND	ND	0.15	ND	ND
4,4-DDE	72-55-9	17	8.9	0.0033	ND	ND	ND	ND	ND	0.055	ND	0.12
4,4-DDT	50-29-3	136	7.9	0.0033	ND	ND	ND	ND	ND	0.16	ND	0.7
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND	ND	ND	ND	ND	0.16	ND	0.21
delta-BHC	319-86-8	0.25	100	0.04	ND	ND	ND	ND	ND	0.048	ND	ND

#### Qualifiers

ND - The compound was not detected at the laboratory reporting limit.

Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

Sample ID		NY SCO - Protection of Groundwater w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Restricted Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Unrestricted Use (6 NYCRR 375-6 12/06)	MW-10 (8-10')
Sampling Date					2/28/2007
Units		mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS#				
Semi-Volatile Organic Co	mpounds				
Benzo(a)anthracene	56-55-3	1	1	1	ND
Benzo(a)pyrene	50-32-8	22	1	1	ND
Benzo(b)fluoranthene	205-99-2	1.7	1	1	ND
Benzo(g,h,i)perylene	191-24-2	1000	100	100	ND
Benzo(k)fluoranthene	207-08-9	1.7	3.9	0.80	ND
Chrysene	218-01-9	1	3.9	1	ND
Dibenzo(a,h)anthracene	53-70-3	1000	0.33	0.33	ND
Indeno(1,2,3-cd)pyrene	193-39-5	8.2	0.50	0.50	ND
Metals					
Arsenic	7440-38-2	16	16	13	2.7
Barium	7440-39-3	820	400	350	50
Chromium	7440-47-3	19	110	30	17
Copper	7440-50-8	1720	270	50	38
Lead	7439-92-1	450	400	63	26
Manganese	7439-96-5	2000	2000	1600	
Mercury	7439-97-6	0.73	0.81	0.18	ND
Nickel	7440-02-0	130	310	30	22
Zinc	7440-66-6	2480	10000	109	71
Pesticides					
4,4-DDD	72-54-8	14	13	0.0033	ND
4,4-DDE	72-55-9	17	8.9	0.0033	ND
4,4-DDT	50-29-3	136	7.9	0.0033	ND
alpha-Chlordane	5103-71-9	2.9	4.2	0.094	ND
delta-BHC	319-86-8	0.25	100	0.04	ND

#### Qualifiers

ND - The compound was not detected at the laboratory reporting limit.

Reporting limit exceedance	Symbol
Unrestricted Use	Highlighted in Yellow
Residential Use	Bolded
Protection of Groundwater Use	Bolded

	1	NY TOGS Class										Г		Г		$\overline{}$
		GA GW Standards (NYSDEC 6/2004)														
Sample ID		(NT3DEC 6/2004)		Н				Н				L				Н
Lab Sample Number			MW-01	Н	MW-02	L	MW-03	Н	MW-04		MW-01	⊢	MW-02	L	MW-03	₽
Sampling Date			8/24/2006		8/24/2006		8/24/2006	Ш	8/24/2006		3/29/2007	╙	3/30/2007		3/28/2007	Ш
Matrix		WATER	Water		Water		Water	Ш	Water		Water	┡	Water		Water	Ш
Units		ug/l	ug/l		ug/l		ug/l	Ш	ug/l		ug/l	┖	ug/l	L	ug/l	Ш
VOCs																$\sqcup$
COMPOUND	CAS#							Ш								Ш
Trichlorofluoromethane	75-69-4	5	N/A	U	ND	U	ND	U	23	J	N/A	U	N/A	U	N/A	U
trans-1,2-Dichloroethene	156-60-5	5	ND	U	ND	U	ND	U	6.8	J	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	156-59-2	5	ND	U	ND	U	ND	U	7.8	J	ND	U	ND	U	ND	U
Chloroform	67-66-3	7	1.6	J	ND	U										
Benzene	71-43-2	1	ND	U												
Trichloroethene	79-01-6	5	ND	U	ND	U	1.2	J	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	127-18-4	5	9.1	J	ND	U	2.9	J	ND	U	12	J	ND	U	1.1	J
Ethyl Benzene	100-41-4	5	ND	U												
m/p-Xylenes	179601-23-1	5	ND	С	ND	U	ND	U	ND	С	ND	U	ND	U	ND	С
o-Xylene	95-47-6	5	ND	С	ND	U	ND	U	ND	С	ND	U	ND	U	ND	С
Isopropylbenzene	98-82-8	5	ND	U	ND	U	ND	U	ND	U	N/A	U	N/A	U	N/A	υ
SVOCs																
Benzo(a)anthracene	56-55-3	0.002	ND		ND		4.3		ND		ND		ND		ND	П
Benzo(a)pyrene	50-32-8	ND	ND		ND		4.6		ND		ND		ND		ND	
Benzo(b)fluoranthene	205-99-2	0.002	ND		ND		5.8		ND		ND	Π	ND		ND	П
Benzo(k)fluoranthene	207-08-9	0.002	ND		ND		2		ND		ND		ND		ND	
bis(2-ethylhexyl)phthalate	117-81-7	5	ND		5.9		5.4		3.2		ND		2.5		ND	П
Chrysene	218-01-9	0.002	ND		ND		4.5		ND		ND		ND		ND	П
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ND		ND		2.9		ND		ND		ND		ND	П
Naphthalene	91-20-3	10	ND		ND	П	ND		ND		ND		ND		ND	П
Metals																
Arsenic	7440-38-2	25	5		7.3	J	58	J	110	J	ND	U	6.5	J	ND	U
Barium	7440-39-3	1000	290		260	J	3000	J	ND	U	86	J	380	J	71	J
Beryllium	7440-41-7	3	ND		ND	U	11	J	ND	U	ND	U	ND	U	ND	U
Cadmium	7440-43-9	5	ND		2.1	J	8.7	J	ND	U	ND	U	ND	U	ND	U
Chromium	7440-47-3	50	50		ND	U	390	J	40	J	ND	U	31	J	ND	U
Copper	7440-50-8	200	90		33	J	940	J	56	J	ND	U	45	J	ND	U
Lead	7439-92-1	25	63		71	J	2600	J	33	J	ND	U	51	J	ND	U
Nickel	7440-02-0	100	44		25	J	260	J	45	J	ND	U	32	J	ND	U

#### Qualifiers

U - The compound was not detected at the indicated concentration.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Reporting limit exceedance

		NY TOGS Class		ı									I	ı -		$\Box$
		GA GW Standards (NYSDEC 6/2004)														Ш
Sample ID		(NYSDEC 6/2004)						Ш								Щ
Lab Sample Number			MW-04		MW-05		MW-06	Ш	MW-07		MW-10S		MW-10D		MW-11	Ш
Sampling Date			3/28/2007		3/29/2007		3/30/2007	Ш	3/29/2007		3/28/2007		3/28/2007		3/28/2007	Ш
Matrix		WATER	Water		Water		Water	Ш	Water		Water		Water		Water	Ш
Units		ug/l	ug/l		ug/l	Ш	ug/l	Ш	ug/l		ug/l		ug/l		ug/l	Ш
VOCs																
COMPOUND	CAS#							Ш								Ш
Trichlorofluoromethane	75-69-4	5	N/A	U	N/A	U										
trans-1,2-Dichloroethene	156-60-5	5	17	J	ND	U	ND	U								
cis-1,2-Dichloroethene	156-59-2	5	17	J	ND	U	ND	U	ND	U	2.8	J	ND	U	ND	U
Chloroform	67-66-3	7	ND	U	1.8	J	ND	U	ND	U	ND	U	25	J	ND	U
Benzene	71-43-2	1	ND	U	ND	U										
Trichloroethene	79-01-6	5	38	J	ND	U	ND	U	ND	U	ND	U	1.6	J	ND	U
Tetrachloroethene	127-18-4	5	ND	U	10	J	1.1	J	1.5	J	ND	U	1.2	J	ND	U
Ethyl Benzene	100-41-4	5	ND	U	ND	U										
m/p-Xylenes	179601-23-1	5	ND	U	ND	С	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	95-47-6	5	ND	U	ND	С	ND	U	ND	С	ND	U	ND	U	ND	U
Isopropylbenzene	98-82-8	5	N/A	U	N/A	U										
SVOCs																
Benzo(a)anthracene	56-55-3	0.002	ND		N/A											
Benzo(a)pyrene	50-32-8	ND	ND		N/A											
Benzo(b)fluoranthene	205-99-2	0.002	ND		N/A											
Benzo(k)fluoranthene	207-08-9	0.002	ND		N/A											
bis(2-ethylhexyl)phthalate	117-81-7	5	ND		N/A											
Chrysene	218-01-9	0.002	ND		N/A	П										
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ND		N/A	П										
Naphthalene	91-20-3	10	ND		N/A											
Metals																
Arsenic	7440-38-2	25	ND	U	4.2	J	ND	U	ND	U	7.7	J	ND	U	N/A	U
Barium	7440-39-3	1000	29	J	130	J	190	J	59	J	140	J	ND	U	N/A	U
Beryllium	7440-41-7	3	ND	U	55	J	N/A	U								
Cadmium	7440-43-9	5	ND	U	N/A	U										
Chromium	7440-47-3	50	ND	U	N/A	U										
Copper	7440-50-8	200	ND	U	26	J	ND	U	ND	U	ND	U	ND	U	N/A	U
Lead	7439-92-1	25	ND	U	5.7	J	40	J	ND	U	ND	U	ND	U	N/A	U
Nickel	7440-02-0	100	ND	U	17	J	11	J	ND	U	17	J	ND	U	N/A	U

#### Qualifiers

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J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Reporting limit exceedance

		NY TOGS Class		_	1			_		_		Ι .	l			$\overline{}$
		GA GW Standards (NYSDEC 6/2004)														
Sample ID		(NTSDEC 6/2004)						┞						L		Ш
Lab Sample Number			MW-12S		MW-12D	Ш	MW-01	┡	MW-02		MW-03		MW-04	L	MW-05	Ш
Sampling Date			3/30/2007		3/30/2007		6/30/2008	_	6/30/2008		6/27/2008		6/30/2008		6/26/2008	Ш
Matrix		WATER	Water		Water	Ш	Water		Water		Water		Water	L	Water	Ш
Units		ug/l	ug/l		ug/l	Ш	ug/l	┖	ug/l		ug/l		ug/l	L	ug/l	Ш
VOCs						Ш.										Ш
COMPOUND	CAS#													L		Ш
Trichlorofluoromethane	75-69-4	5	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	156-60-5	5	ND	U	ND	U	ND	U	ND	U	ND	U	7.9	J	ND	U
cis-1,2-Dichloroethene	156-59-2	5	ND	U	ND	U	ND	U	ND	U	ND	U	8.6	J	ND	U
Chloroform	67-66-3	7	ND	U	22	J	ND	U	ND	U	ND	U	ND	U	ND	U
Benzene	71-43-2	1	3.4	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Trichloroethene	79-01-6	5	ND	U	ND	Ω	ND	U	ND	U	ND	U	15	J	ND	U
Tetrachloroethene	127-18-4	5	ND	U	ND	U	7.5	J	ND	U	2.3	J	2.1	J	6.5	J
Ethyl Benzene	100-41-4	5	50	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
m/p-Xylenes	179601-23-1	5	29	J	ND	υ	ND	U	ND	U	ND	U	ND	U	ND	U
o-Xylene	95-47-6	5	36	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Isopropylbenzene	98-82-8	5	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
SVOCs																
Benzo(a)anthracene	56-55-3	0.002	N/A		N/A		ND		ND		ND		ND		ND	
Benzo(a)pyrene	50-32-8	ND	N/A		N/A		ND		ND		ND		ND		ND	
Benzo(b)fluoranthene	205-99-2	0.002	N/A		N/A		ND		ND		ND		ND		ND	
Benzo(k)fluoranthene	207-08-9	0.002	N/A		N/A		ND		ND		ND		ND		ND	П
bis(2-ethylhexyl)phthalate	117-81-7	5	N/A		N/A		ND		ND		ND		ND		ND	
Chrysene	218-01-9	0.002	N/A		N/A		ND		ND		ND		ND		ND	П
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	N/A		N/A		ND		ND		ND		ND		ND	
Naphthalene	91-20-3	10	N/A		N/A		ND		ND		ND		ND		ND	
Metals																
Arsenic	7440-38-2	25	N/A	U	N/A	U	8.2	J	ND	U	ND	U	ND	U	ND	U
Barium	7440-39-3	1000	N/A	U	N/A	U	ND	U	78	J	95	J	ND	U	60	J
Beryllium	7440-41-7	3	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
Cadmium	7440-43-9	5	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chromium	7440-47-3	50	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
Copper	7440-50-8	200	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
Lead	7439-92-1	25	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U
Nickel	7440-02-0	100	N/A	U	N/A	U	ND	U	ND	U	ND	U	ND	U	ND	U

#### Qualifiers

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J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Reporting limit exceedance

	1	NY TOGS Class								ı -	1	ı		$\overline{}$
		GA GW Standards (NYSDEC 6/2004)												
Sample ID	_	(N13DE3 0/2004)						Н						₩
Lab Sample Number			MW-06		MW-07	$\vdash$	MW-10S	Н	MW-10D		MW-12S		MW-12D	$\vdash$
Sampling Date			6/26/2008		6/26/2008	H	6/27/2008	Н	6/27/2008		6/26/2008		6/25/2008	Н
Matrix		WATER	Water		Water		Water		Water		Water		Water	$\vdash$
Units		ug/l	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	Н
VOCs														Ш
COMPOUND	CAS#					L		Ш						Н
Trichlorofluoromethane	75-69-4	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
trans-1,2-Dichloroethene	156-60-5	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	156-59-2	5	ND	U	ND	U	3.6	J	ND	U	ND	U	ND	U
Chloroform	67-66-3	7	ND	U	ND	U	ND	U	35	J	ND	U	ND	U
Benzene	71-43-2	1	ND	U	ND	U	ND	U	ND	U	5.3	J	ND	U
Trichloroethene	79-01-6	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Tetrachloroethene	127-18-4	5	2.2	J	2	J	2	J	6.5	J	ND	U	ND	U
Ethyl Benzene	100-41-4	5	ND	U	ND	U	ND	U	ND	U	2.7	J	ND	U
m/p-Xylenes	179601-23-1	5	ND	U	ND	U	ND	U	ND	U	9.9	J	ND	U
o-Xylene	95-47-6	5	ND	С	ND	U	ND	С	ND	U	10	J	ND	U
Isopropylbenzene	98-82-8	5	ND	U	ND	U	ND	С	ND	U	11	J	ND	U
SVOCs														
Benzo(a)anthracene	56-55-3	0.002	ND		ND		ND		ND		ND		ND	П
Benzo(a)pyrene	50-32-8	ND	ND		ND		ND		ND		ND		ND	П
Benzo(b)fluoranthene	205-99-2	0.002	ND		ND		ND		ND		ND		ND	П
Benzo(k)fluoranthene	207-08-9	0.002	ND		ND	Г	ND		ND		ND		ND	П
bis(2-ethylhexyl)phthalate	117-81-7	5	ND		ND		ND		ND		ND		81	
Chrysene	218-01-9	0.002	ND		ND		ND	П	ND		ND		ND	П
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	ND		ND		ND		ND		ND		ND	П
Naphthalene	91-20-3	10	ND		ND	Г	ND		ND		180		ND	П
Metals														
Arsenic	7440-38-2	25	ND	U	ND	U	13	J	ND	U	8.7	J	ND	U
Barium	7440-39-3	1000	ND	U	ND	U	460	J	400	J	110	J	ND	U
Beryllium	7440-41-7	3	ND	U	ND	U	6.4	J	5.5	J	ND	U	ND	U
Cadmium	7440-43-9	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
Chromium	7440-47-3	50	ND	U	ND	U	120	J	90	J	ND	U	ND	U
Copper	7440-50-8	200	ND	U	ND	U	190	J	64	J	ND	U	ND	U
Lead	7439-92-1	25	ND	U	ND	U	69	J	23	J	ND	U	9.8	J
Nickel	7440-02-0	100	ND	U	ND	U	95	J	69	J	ND	U	ND	U

#### Qualifiers

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J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Reporting limit exceedance

Table 4A - 2006 Site Vapor Intrusion Results

Sample ID Air Monitoring Location			KK-3 b-Slab	I	K-5 o-Slab		K-7 o-Slab		K-9 o-Slab	I	K-10 o-Slab	KK-11 Sub-Slab		KK-12 Sub-Slab		KK-2 Indoor Air		
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,1-Dichloroethene	1	60	2.4	U	555	U	7.9	U	6.3	U	0.79	U	0.79	U	6.3	U	0.79	U
cis-1,2-Dichloroethene	1	60	2.4	U	555	U	71		6.3	U	6.7		0.79	U	6.3	U	0.79	U
trans-1,2-Dichloroethene			2.4	U	555	U	7.9	U	6.3	U	0.79	U	0.79	U	6.3	U	0.79	U
Tetrachloroethene	10	1000	1220	D	250748	D	5489	D	2507	D	129		745	D	6370	D	2.3	
Trichloroethene	1	60	7.0		752	U	188		8.6	U	3.8		7.0		30		1.1	U
Vinyl chloride	0.2	60	1.5	U	358	U	5.1	U	4.1	U	0.51	U	0.51	U	4.1	U	0.51	U
Acetone			195		8067	U	128		95	U	45		138	D	237		23	
Benzene	10	600	1.9	U	447	U	6.4	U	5.4		1.0		0.73		5.1	U	1.2	
Chloroform			2.9	U	683	U	13		7.8	U	1.0	U	1.0	U	7.8	U	1.0	U
Chloromethane			3.1	U	702	U	10	U	8.3	U	1.3		1.1		8.3	U	1.4	
1,2-Dichlorobenzene			3.6	U	841	U	12	U	9.6	U	1.2	U	1.2	U	9.6	U	1.2	U
1,2-Dichloroethane			2.4	U	566	U	8.1	U	6.5	U	0.81	U	0.81	U	6.5	U	0.81	U
Dichlorodifluoromethane			7.4	U	1680	U	25	U	20	U	3.5		4.0		99		3.1	
Ethylbenzene	10	600	16		607	U	8.7	U	6.9	U	0.87	U	0.87	U	382		0.87	
4-Ethyltoluene			49		688	U	11		79	U	1.0	U	1.0	U	295		1.0	U
Freon TF			4.6	U	1072	U	15	U	12	U	1.5	U	1.5	U	12	U	1.6	
n-Heptane	20	2000	2.5	U	573	U	8.2	U	6.6	U	8.2	U	0.82	U	6.6	U	0.82	U
n-Hexane	20	2000	5.3	U	1198	U	18	U	14	U	1.8	U	2.0		14	U	1.8	U
Methylene chloride	10	1000	5.2	U	1180	U	17	U	14	U	1.7	U	2.0		14	U	1.7	U
Methyl ethyl ketone			7.7		1002.0	U	15.0	U	12.0	U	1.5	U	2.5		12.0	U	1.5	U
Methyl isobutyl ketone			57		1392	U	20	U	16	U	2.0	U	2.0	U	16	U	2.0	U
Styrene			3.9		596	U	8.5	U	6.8	U	5.1		2.1	U	6.8	U	3.8	
Toluene	50	3000	33		527	U	12		215		49		94		7.9		9.4	
Trichlorofluoromethane			5.6		786.0	U	11	U	9.0	U	1.9		2.2		9.0	U	2.0	
1,2,4-Trimethylbenzene	10	600	216		688	U	11		7.9	U	1.0		1.2		835		1.0	U
1,3,5-Trimethylbenzene	10	600	64		688	U	9.8	U	7.9	U	1.0	U	1.0	U	270		1.0	U
m,p-Xylene	20	2000	104		1475	U	34		17	U	2.3		2.2	U	2430	D	3.3	
o-Xylene			100		824		16		6.9	U	1.0		0.87	U	1562	D	1.5	

- = Outdoor sub-slab is below the pavement surrounding four sides of the building.
- D = The associated value qualified with D is the reporting value from an analysis of the sample with a secondary dilutution. The original analysis value was not used because that value exceeded the calibration range of the instrument.
- $U = Chemical \ not \ detected \ at \ or \ above \ the \ laboratory$  reporting limit. The associated value designated with U is the reporting limit.

**Bold value** = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/indoor air decision matrices. Per the decision matrices, Further Monitring would be required.

Bold value = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/indoor air decision matrices. Per the decision matrices, Mitigation would be required.

Concentration was below laboratory detection limit, but above NYSDOH action levels.

Table 4A - 2006 Site Vapor Intrusion Results

Sample ID Air Monitoring Location			K-6 oor Air	l	K-13 oor Air		K-16 oor Air		K-1 r Sub-Slab	I	K-4 r Sub-Slab		KK-8 Outdoor Sub-Slab		KK-14 Outdoor Sub-Slab		K-15 oor Air	
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers
1,1-Dichloroethene	1	60	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	16	U	0.79	U	0.79	U
cis-1,2-Dichloroethene	1	60	0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	16	U	0.79	U	0.79	U
trans-1,2-Dichloroethene			0.79	U	0.79	U	0.79	U	0.79	U	0.79	U	16	U	0.79	U	0.79	U
Tetrachloroethene	10	1000	8.8		3.1		3.5		60		42		27	U	1.4	U	1.4	U
Trichloroethene	1	60	1.1	U	1.1	U	1.1	U	1.1		1.1	U	21	U	1.1	U	1.1	U
Vinyl chloride	0.2	60	0.51	U	0.51	U	0.51	U	0.51	U	0.51	U	10	U	0.51		0.51	U
Acetone			24		26		23		14		52		237	U	12	U	28	
Benzene	10	600	1.1		1.3		1.2		0.64	U	0.64	U	13	U	0.64	U	1.1	
Chloroform			1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	20	U	1.0		1.0	U
Chloromethane			1.4		1.5		1.8		1.0	U	1.0	U	21	U	1.0		1.8	
1,2-Dichlorobenzene			1.2	U	1.6		1.2	U	4.6		1.2	U	24	U	1.3		1.3	
1,2-Dichloroethane			0.81	U	1.2		0.82	U	0.81	U	0.81	U	16	U	1.0		1.9	
Dichlorodifluoromethane			3.5		3.7		3.8		2.5	U	2.5	U	49	U	25	U	3.6	
Ethylbenzene	10	600	0.87	U	2.0		0.87	U	1.4		0.87	U	17	U	1.2		2.3	
4-Ethyltoluene			1.0	U	1.4		1.0	U	1.0	U	1.0	U	20	U	1.0		1.0	U
Freon TF			1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	31	U	1.5		1.5	U
n-Heptane	20	2000	0.82	U	0.86		0.82	U	0.82	U	0.82	U	16	U	0.82		0.94	
n-Hexane	20	2000	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	35	U	1.8		1.8	U
Methylene chloride	10	1000	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	35	U	1.7		1.9	
Methyl ethyl ketone			1.5	U	1.5	U	1.5	U	2.1		5.6		29	U	1.5		1.5	U
Methyl isobutyl ketone			2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	41	U	2.0		2.0	U
Styrene			3.6		4.0		1.1		0.85	U	0.85	U	17	U	0.85		0.85	U
Toluene	50	3000	8.7		20		7.9		4.9		13		10,168	D	12		23	
Trichlorofluoromethane			1.6		1.7		1.7		1.9		1.7		22	U	1.1		1.6	
1,2,4-Trimethylbenzene	10	600	1.0	U	1.6		1.0	U	1.0		1.0	U	20	U	1.0		1.0	U
1,3,5-Trimethylbenzene	10	600	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	20	U	1.0		1.0	U
m,p-Xylene	20	2000	2.2		13		2.8		7.8		2.2	U	43	U	8.2		14	
o-Xylene			0.87		5.6		1.3		4.2	ĺ	0.87	U	17	U	3.5		5.6	

- = Outdoor sub-slab is below the pavement surrounding four sides of the building.
- D = The associated value qualified with D is the reporting value from an analysis of the sample with a secondary dilutution. The original analysis value was not used because that value exceeded the calibration range of the instrument.
- $\label{eq:U} U = Chemical not detected at or above the laboratory \\ reporting limit. The associated value designated with U is \\ the reporting limit.$

**Bold value** = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/indoor air decision matrices. Per the decision matrices, Further Monitring would be required.

Bold value = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/indoor air decision matrices. Per the decision matrices, Mitigation would be required.

Concentration was below laboratory detection limit, but above NYSDOH action levels.

Table 4B - 2006 Off-Site Vapor Intrusion Results

	mple ID oring Location			K-17 -Slab		K-18 oor Air	KK-19 Indoor Air			
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)	Results	Qualifiers	Results	Qualifiers	Results	Qualifiers		
1,1-Dichloroethene	1	60	0.79	U	0.79	U	0.79	U		
cis-1,2-Dichloroethene	1	60	0.79	U	0.79	U	0.79	U		
trans-1,2-Dichloroethene			0.79	U	0.79	U	0.79	U		
Tetrachloroethene	10	1000	16		18		1.4	U		
Trichloroethene	1	60	1.1	U	1.1	U	1.1	U		
Vinyl chloride	0.2	60	0.51	U	0.51	U	0.51	U		
Acetone			95		17		26			
Benzene	10	600	0.77		1.1		1.3			
tert-Butyl alcohol			23		15	U	15	U		
Chloroform			3.3		1	U	1			
Chloromethane			1	U	1.5		1.9			
1,4-Dichlorobenzene			4.4		1.2	U	1.2	U		
Dichlorodifluoromethane			39		6.4		5.9			
Ethylbenzene	10	600	0.87		0.87	U	0.87	U		
4-Ethyltoluene			1.3		1	U	1	U		
n-Heptane	20	2000	3.2		0.82	U	0.82			
n-Hexane	20	2000	3.5		1.8	U	4.6			
Methylene chloride	10	1000	1.8		1.7	U	3.8			
Methyl ethyl ketone			5.3		1.5	U	1.5	U		
Methyl isobutyl ketone			2	U	2	U	2	U		
Styrene			2.8		1.9		1.7			
Toluene	50	3000	25		5.6		6.4			
Trichlorofluoromethane			5.1		3.4		2.5			
1,2,4-Trimethylbenzene	10	600	2		1	U	1	U		
m,p-Xylene	20	2000	4		2.2		2.2	U		
o-Xylene			1.3		0.87	U	0.87	U		

U = Chemical not detected at or above the laboratory reporting limit. The associated value designated with U is the reporting limit.

**Bold value** = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/ indoor air decision matrices. Per the decision matrices, Further Monitring would be required.

Concentration was below laboratory detection limit, but above NYSDOH action levels.

<sup>• =</sup> Outdoor sub-slab is below the pavement surrounding four sides of the building.

Table 4C - 2007/2008 Vapor Intrusion Results

Sai Air Monit		SS-01 Sub-Slab			SS-02 Sub-Slab	,		SS-03 Sub-Slab	,		SS-04 Sub-Slab	)	SS-05 Sub-Slab					
			Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)	Results				Results			Results			Results			Results		
Vinyl chloride	0.2	60	0.034 U	0.046 U	0.044 U	0.044 U	1 U	0.35 U	0.034 U	0.82 U	0.19 U	0.051 U	200 U	22 U	0.039 U	2.0 U	0.52 U	
1,1-Dichloroethene	1	60	0.053 U	0.071 U	0.068 U	0.068 U	1.6 U	0.54 U	0.053 U	1.3 U	0.30 U	0.078 U	320 U	34 U	0.060 U	3.1 U	0.81 U	
cis-1,2-Dichloroethene	1	60	0.11 U	0.14 U	0.14 U	0.33	3.1 U	1.1 U	0.13	2.6 U	0.59 U	0.16 U	320 U	34 U	0.16 U	6.1 U	1.6 U	
Tetrachloroethene	10	1000	4 <b>180</b> 36		96	2500	920	60	1900	470	220	120000	17000	67	7500	1400		
Trichloroethene	1	60	0.14 U	3.8	0.18 U	3.7	8.4	1.6	2.5	21.0	2.6	0.98	560.0	86.0	0.5	52.0	8.4	
trans-1,2-Dichloroethene			0.53 U	0.53 U 0.71 U 0.68 U			16 U	5.4 U	0.53 U	13 U	3.0 U	0.78 U	320 U	34 U	0.60 U	31 U	8.1 U	

Sa	mple ID			SS-06			SS-07			SS-08			SS-09			SS-10			
			Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08		
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)		Results			Results			Results			Results			Results			
Vinyl chloride	0.2	60	0.035 U	0.39 U	0.14 U	0.071 U	0.23 U	0.24 U	0.1 U	52 U	5.5 U	0.04 U	0.42 U	0.27 U	0.04 U	0.18 U	1.0 U		
1,1-Dichloroethene	1	60	0.054 U	0.6 U	0.21 U	0.11 U	0.36 U	0.37 U	0.16 U	81 U	8.6 U	0.061 U	0.65 U	0.42 U	0.063 U	0.28 U	1.6 U		
cis-1,2-Dichloroethene	1	60	0.11 U	2.7	0.42 U	0.22 U	0.72 U	0.74 U	0.32 U	81 U	8.6 U	0.12 U	1.3 U	0.85 U	0.12 U	0.56 U	3.1 U		
Tetrachloroethene	10	1000	85	1600	360	1	675	900	380.0	44000	4000	49	1900	620	2.1	650	2500		
Trichloroethene	1	60	0.66	55.0	0.57 U	0.3 U	14.0	7.8	2.1	140.0	16.0	0.79	14.0	3.9	0.18	22.0	88.0		
trans-1,2-Dichloroethene			0.54 U	6 U	2.1 U	1.1 U	3.6 U	3.7U	1.6 U	81 U	8.6 U	0.61 U	6.5 U	4.2 U	0.63 U	2.8 U	16 U		

Sar	mple ID			SS-11			SS-12			SS-13		SS-14				
			Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08		
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)		Results			Results			Results		Results				
Vinyl chloride	0.2	60	0.037 U	17 U	5 U	0.04 U	0.041 U	0.042 U	0.041 U	2 U	2.2 U	0.27 U	0.82 U	0.12 U		
1,1-Dichloroethene	1	60	0.1	26 U	7.7 U	0.061 U	0.064 U	0.065 U	0.064 U	3.2 U	3.4 U	0.42 U	1.3 U	0.18 U		
cis-1,2-Dichloroethene	1	60	0.12 U	26 U	7.7 U	0.12 U	0.13 U	0.13 U	0.13 U	3.2 U	3.4 U	0.85 U	2.6 U	0.36 U		
Tetrachloroethene	10	1000	6.5	15000	3000	0.68	48	52	3.30	850	1200	1300	3100	430		
Trichloroethene	1	60	2.1	45	12	0.17 U	5.1	0.18 U	0.43	66.0	51.0	5.2	35	3.4		
trans-1,2-Dichloroethene			0.58 U	26 U	7.7 U	0.61 U	0.64 U	0.65 U	0.64 U	3.2 U	3.4 U	4.2 U	1.3 U	1.8 U		

Sai	Sample ID						IA-01			IA-02		l	IA-03			IA-04			
			Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08	Apr-07	Sep-07	Jan-08		
Chemical	NYSDOH Indoor Air Action Level (µg/m³)	NYSDOH Sub Slab Air Action Level (µg/m³)	Results				Results			Results			Results			Results			
Vinyl chloride	0.2	60	0.039 U	N/A	0.038 U	0.04 U	N/A	0.038 U	0.04 U	N/A	0.043 U	0.04 U	N/A	0.035 U	0.038 U	N/A	0.04 U		
1,1-Dichloroethene	1	60	0.06 U	N/A	0.059 U	0.063 U	N/A	0.059 U	0.061 U	N/A	0.067 U	0.063 U	N/A	0.054 U	0.059 U	N/A	0.061 U		
cis-1,2-Dichloroethene	1	60	0.12 U	N/A	0.12 U	0.12 U	N/A	0.12 U	0.12 U	N/A	0.13 U	0.12 U	N/A	0.11 U	0.12 U	N/A	0.12 U		
Tetrachloroethene	10	1000	0.52	N/A	0.49	0.46	N/A	3	0.46	N/A	2.8	0.46	N/A	2.5	0.51	N/A	4.7		
Trichloroethene	1	60	0.16 U	N/A	0.16 U	0.17 U	N/A	0.22	0.17 U	N/A	0.18 U	0.17 U	N/A	0.34	0.16 U	N/A	0.18		
trans-1,2-Dichloroethene			0.6 U	N/A	0.59 U	0.63 U	N/A	0.59 U	0.61 U	N/A	0.67 U	0.63 U	N/A	0.54 U	0.59 U	N/A	0.61 U		

Bold value = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/ indoor air decision matrices. Per the decision matrices, Further Monitoring would be required.

Bold value = Detected concentration exceeded the action level as given in the NYSDOH 2017 and 2024 soil vapor/ indoor air decision matrices. Per the decision matrices, Mitigation would be required. Concentration was below laboratory detection limit, but above NYSDOH action levels.

U = Chemical not detected at or above the laboratory reporting limit. The associated value designated with U is the reporting limit.

# Attachment 4 Exceedance Summary Figures

Figure 5 - Surface Sediment Soil Exceedances

**Figure 6 - Subsurface Soil Exceedances** 

**Figure 7 - Water Sampling Exceedances** 

Figure 8 - 2006 Soil Vapor Exceedances

Figure 9 - 2007/08 Soil Vapor Exceedances

