PVE Sheffler

Civil Engineering
Surveying
Land Planning
Environmental
Municipal Services

June 12, 2013

New York City Office of Environmental Remediation
City Voluntary Cleanup Program
c/o Shaminder Chawla
100 Gold Street, 2nd Floor
New York, NY 10038

Re: Remedial Action Work Plan (RAWP) Stipulation List;
South Bronx Charter Shool, 611 E. 133rd Street, Bronx, New York
OER #13CVCP132X
PVE Sheffler File #560862

Dear Ms Bub:

PVE Sheffler, LLC hereby submits a Remedial Action Work Plan (RAWP) Stipulation List for the 611 East 133rd Street Site (the Site) to the New York City Office of Environmental Remediation (OER) on behalf of South Bronx Charter School. This letter serves as an addendum to the RAWP to stipulate additional content, requirements, and procedures that will be followed during the Site remediation. The contents of this list are added to the RAWP and will supersede the content in the RAWP where there is a conflict in purpose or intent. The additional requirements/procedures include the following Stipulation List below:

1. The criterion attached in **Appendix 1** will be utilized if petroleum containing tanks or vessels are identified during the remedial action or subsequent redevelopment excavation activities. All petroleum spills will be reported to the NYSDEC hotline as required by applicable laws and regulations. This contingency plan is designed for heating oil tanks and other small or moderately sized storage vessels. If larger tanks, such as gasoline storage tanks are identified, OER will be notified before this criterion is utilized.

2. A pre-construction meeting is required prior to the start of remedial excavation work at the Site. A pre-construction meeting will be held at the Office of Environmental Remediation and will be attended by OER, the developer or developer representative, the consultant, excavation/general contractor, and if applicable, the soil broker.

3. A pre-approval letter from all disposal facilities will be provided to OER prior to any soil/fill material removal from the Site. Documentation specified in the RAWP - Appendix D - Section 1.6 “Materials Disposal Off-Site” will be provided to OER. If a different disposal facility for the soil/fill material is selected, OER will be notified immediately.

One Civic Center Plaza, Suite 501, Poughkeepsie, New York 12601
Phone: 845-454-2544 ∞ Fax: 845-454-2655

PVE Sheffler

4. A CD containing the final RAWP including this approved Stipulation List will be placed in the library that constitutes the primary public repository for project documents.

5. Signage for the project will include a sturdy placard mounted in a publically accessible right of way to building and other permits signage will consist of the NYC VCP Information Sheet (attached **Appendix 2**) announcing the remedial action. The Information sheet will be laminated and permanently affixed to the placard.

6. This NYC VCP project may involve the removal and transportation of hazardous waste and may be subject to the New York state Department of Environmental Conservation's Special Assessment Tax (ECL 27-0923) and Hazardous Waste Regulatory Fees (ECL 72-00402). See DEC's website for more information: http://www.dec.ny.gov/chemical/9099.html.

7. Collection and analysis of four post-excavation samples from the bottom of the excavation will be collected to evaluate the performance of the remedy with respect to attainment of Track 4 SCOs. Revised Figure 5 indicating end point post-excavation sampling locations is attached in **Appendix 3**. If bedrock is not reached in eastern section of property, additional endpoint samples will be obtained in consultation with OER. Samples will be analyzed for contaminants of concern (pesticides and Metals only).

8. **Appendix 4** includes Vapor Barrier Pre-Certification letter from Vapor Barrier manufacturer stating that the proposed vapor barrier system mitigates against the contaminants of concern at the site.

9. OER requires parties seeking City Brownfield Incentive Grants (BIG) grants to carry insurance. For a cleanup grant, both the excavator and the trucking firm(s) that handle removal of soil must carry or be covered under a commercial general liability (CGL) policy and a contractors pollution liability (CPL) policy, both of which must provide $1 million per claim in coverage. Both policies must name the City of New York, the NYC Economic Development Corporation, and Brownfield Redevelopment Solutions as additional insured. A fact sheet regarding insurance is attached as **Appendix 5**.

If you have any questions, please feel free to contact me.

Sincerely,

PVE SHEFFLER, LLC

Christopher B. Brown, CPG
Vice President/Senior Hydrogeologist

CBB\tla

cc: S. Chawla, OER

Appendix 1

Generic Procedures for Management of Underground Storage Tanks identified under the NYC VCP

Prior to Tank removal, the following procedures should be followed:

- Remove all fluid to its lowest draw-off point.
- Drain and flush piping into the tank.
- Vacuum out the "tank bottom" consisting of water product and sludge.
- Dig down to the top of the tank and expose the upper half.
- Remove the fill tube and disconnect the fill, gauge, product, vent lines and pumps. Cap and plug open ends of lines.
- Temporarily plug all tank openings, complete the excavation, remove the tank and place it in a secure location.
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank.
- Clean tank or remove to storage yard for cleaning.
- If the tank is to be moved, it must be transported by licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8 inch vent hole located at the top of the tank during transport.
- After cleaning, the tank must be made acceptable for disposal at a scrap yard, cleaning the tanks interior with a high pressure rinse and cutting the tank in several pieces.

During the tank and pipe line removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipe line condition (pitting, holes, staining, leak points, evidence of repairs, etc.).
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with a calibrated photoionization detector (PID).

<u>Impacted Soil Excavation Methods</u>

The excavation of the impacted soil will be performed following the removal of the existing tanks. Soil excavation will be performed in accordance with the procedures described under Section 5.5 of Draft DER-10 as follows:

- A description and photographic documentation of the excavation.
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with calibrated photoionization detector (PID).

Final excavation depth, length, and width will be determined in the field, and will depend on the horizontal and vertical extent of contaminated soils as indentified through physical examination (PID response, odor, staining, etc.). Collection of verification samples will be performed to evaluate the success of the removal action as specified in this document.

The following procedure will be used for the excavation of impacted soil (as necessary and appropriate):

- Wear appropriate health and safety equipment as outlined in the Health and Safety Plan.

- Prior to excavation, ensure that the area is clear of utility lines or other obstructions. Lay plastic sheeting on the ground next to the area to be excavated.

- Using a rubber-tired backhoe or track mounted excavator, remove overburden soils and stockpile, or dispose of, separate from the impacted soil.

- If additional UST's are discovered, the NYSDEC will be notified and the best course of action to remove the structure should be determined in the field. This may involve the continued trenching around the perimeter to minimize its disturbance.

- If physically contaminated soil is present (e.g., staining, odors, sheen, PID response, etc.) an attempt will be made to remove it, to the extent not limited by the site boundaries or the bedrock surface. If possible, physically impacted soil will be removed using the backhoe or excavator, segregated from clean soils and overburden, and staged on separated dedicated plastic sheeting or live loaded into trucks from the disposal facility. Removal of the impacted soils will continue until visibly clean material is encountered and monitoring instruments indicate that no contaminants are present.

- Excavated soils which are temporarily stockpiled on-site will be covered with tarp material while disposal options are determined. Tarp will be checked on a daily basis and replaced, repaired or adjusted as needed to provide full coverage. The sheeting will be shaped and secured in such a manner as to drain runoff and direct it toward the interior of the property.

Once the site representative and regulatory personnel are satisfied with the removal effort, verification of confirmatory samples will be collected from the excavation in accordance with DER-10.

Appendix 2

Signage

NYC Voluntary Cleanup Program

611 East 133 Street

Site #: 13CVCP132X

This property is enrolled in the New York City Voluntary Cleanup Program for environmental remediation. This is a voluntary program administered by the NYC Office of Environmental Remediation.

Or scan with smart phone:

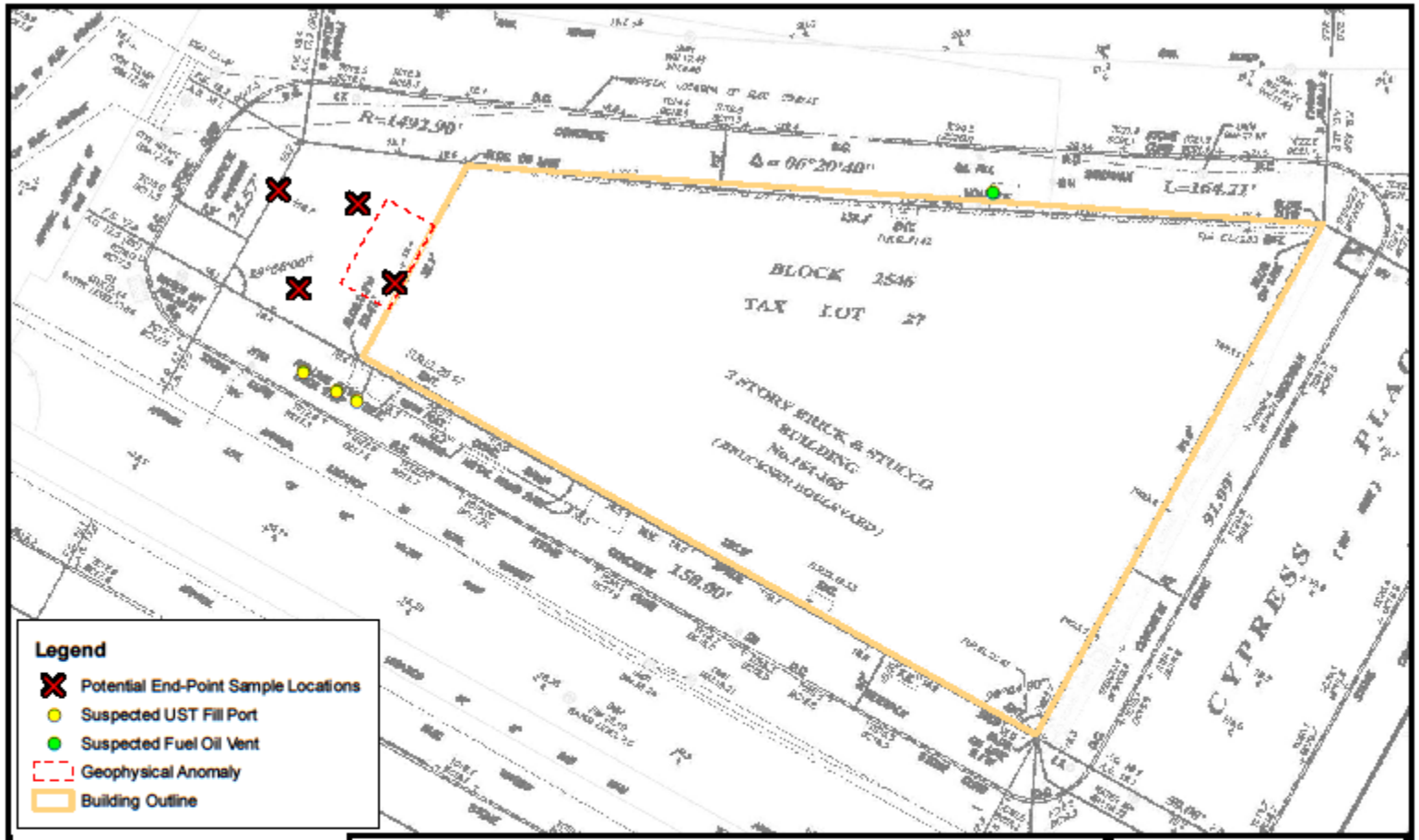
For more information,
log on to: www.nyc.gov/oer

If you have questions or would like more information, please contact:

Shaminder Chawla at (212) 442-3007
or email us at brownfields@cityhall.nyc.gov

Appendix 3

Endpoint Sampling Map



BASEMAP:
"ALTA/ACSM LAND TITLE SURVEY",
ARTISTOTLE BOURNAZOS, P.C.,
DATED 6-15-2007

0 10 20 40 Feet

POTENTIAL END-POINT SAMPLE LOCATIONS

SOUTH BRONX CHARTER SCHOOL
611 EAST 133rd STREET
BRONX, NEW YORK

FIGURE 5

DATE:	04/26/2013
SCALE:	As Indicated
PROJECT NUMBER:	160862

ALL LOCATIONS APPROXIMATE

PVE Sheffler
One Civic Center Plaza
Suite 501
Poughkeepsie, New York 12601
Phone: (845) 454-2544
Fax: (845) 454-2655

Appendix 4

Vapor Barrier Pre-Certification letter

Land Science™ Technologies
1011 Calle Sombra - Ste. 110, San Clemente, CA 92673 P.949.366.8000 F.949.366.8090 www.landsciencetech.com

June 12, 2013

Christopher B. Brown, CPG
PVE Sheffler, LLC
One Civic Center Plaza, Suite 501
Poughkeepsie, New York 12601

Re: Vapor Barrier Certification Letter; GeoSeal$_{TM}$
South Bronx Charter School, 611 E. 133rd Street, Bronx Block 2546 and Lot 27, New York
OER #13CVCP132X
DOB Job #220290593

Dear Mr. Brown:

I have reviewed the following documents for the above referenced project:

- Tables 1-5, Remedial Investigation Report, Soil Analytical Results prepared by PVE Sheffler, LLC, dated May 2013.
- Tables 6-10, Remedial Investigation Report, Groundwater Analytical Results prepared by PVE Sheffler, LLC, dated May 2013.
- Table11, Soil Vapor Analytical Results prepared by PVE Sheffler, LLC, dated May 2013.
- Figures 8, 9 and 10, Vapor Barrier Design and Details in Remedial Action Work Plan, Prepared by PVE Sheffler, LLC, dated May 2013.

The identified contaminants at the levels reported will not have an adverse effect on the waterproofing or vapor barrier properties of the Landscience Technologies GeoSeal$_{TM}$ vapor barrier and venting system, provided standard design and installation procedures are followed.

Upon receipt of "proof of installation" by the qualified vendor/installer, Landscience Technologies will issue a 1 Year Material Warranty for the product.

Sincerely,
Thanks,

Kelly Ameli
National Sales Manager
kameli@landsciencetech.com
M: 949.892.0542

Table 6. **Volatile Organic Compounds (VOCs) in Groundwater Samples;** USEPA Method 8260; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Constituent	NYSDEC Limit[1]	Sample Identification			
		SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Volatile Organic Compounds					
Bromodichloromethane	50	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Bromomethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Bromoform	50	ND<50.0	ND<5.00	ND<5.00	ND<5.00
Carbon tetrachloride	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Chloroethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Chloromethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
2-Chloroethyl vinyl ether	50	ND<100	ND<10.0	ND<10.00	ND<10.0
Chloroform	7	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Dibromochloromethane	50	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,1-Dichloroethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,2-Dichloroethane	0.6	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,1-Dichloroethene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
cis-1, 2-Dichloroethene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
trans-1,2-Dichloroethene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,2-Dichloropropane	1	ND<20.0	ND<2.00	ND<2.00	ND<2.00
cis-1,3-Dichloropropene	5	ND<20.00	ND<2.00	ND<2.00	ND<2.00
trans-1,3-Dichloropropene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Methylene chloride	5	ND<50.0	ND<5.00	ND<5.00	ND<5.00
1,1,2,2-Tetrachloroethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Tetrachloroethene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,1,1-Trichloroethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,1,2-Trichloroethane	1	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Trichloroethene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Trichlorofluoromethane	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Vinyl Chloride	2	ND<20.0	ND<2.00	ND<2.00	ND<2.00

Notes:
1 - Standards are for Class GA groundwater according to 6NYCRR Part 700-705.
All concentrations are in ug/L unless otherwise indicated.
ND=Not detected, detection limit listed.
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standard.
E = Exceeded calibration range of instrumentation.

Table 6 (cont.) **Volatile Organic Compounds (VOCs) in Groundwater Samples;** USEPA Method 8260; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Constituent	NYSDEC Limit[1]	Sample Identification			
		SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Volatile Organic Compounds					
Benzene	0.7	ND<7.00	ND<.700	ND<.700	ND<.700
Chlorobenzene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Ethylbenzene	5	**23.6**	ND<2.00	ND<2.00	ND<2.00
Toluene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
m,p-Xylene	5	**36.6**	ND<2.00	ND<2.00	ND<2.00
o-Xylene	5	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Styrene	5	ND<50.0	ND<5.00	ND<5.00	ND<5.00
1,2-Dichlorobenzene	3	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,3-Dichlorobenzene	3	ND<20.0	ND<2.00	ND<2.00	ND<2.00
1,4-Dichlorobenzene	3	ND<20.0	ND<2.00	ND<2.00	ND<2.00
Acetone	50	ND<10.0	ND<10.0	ND<10.00	ND<10.0
2-Butanone	50	ND<10.00	ND<10.0	ND<10.00	ND<10.0
2-Hexanone	50	ND<50.00	ND<5.00	ND<5.00	ND<5.00
4-Methyl-2-pentanone	50	ND<50.00	ND<5.00	ND<5.00	ND<5.00
Carbon disulfide	50	ND<50.00	ND<5.00	ND<5.00	ND<5.00
Vinyl acetate	50	ND<50.00	ND<5.00	ND<5.00	ND<5.00
n-Butylbenzene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
sec-Butylbenzene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
tert-Butylbenzene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
n-propylbenzene	5	**45.3**	ND<2.00	ND<2.00	ND<2.00
Isopropylbenzene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
p-Isopropyltoluene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
Naphthalene	10	ND<50.00	ND<5.00	ND<5.00	ND<5.00
1, 2, 4-Trimethylbenzene	5	**222**	ND<5.00	ND<5.00	ND<5.00
1, 3, 5-Trimethylbenzene	5	ND<50.00	ND<5.00	ND<5.00	ND<5.00
Methyl tert-butyl ether	10	ND<20.0	ND<2.00	ND<2.00	ND<2.00

Notes:
1 - Standards are for Class GA groundwater according to 6NYCRR Part 700-705.
All concentrations are in ug/L unless otherwise indicated.
ND=Not detected, detection limit listed.
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standard.
E = Exceeded calibration range of instrumentation.

Table 7. **Semi-Volatile Organic Compounds (SVOCs) in Groundwater Samples;** USEPA Method 8270; collected **July 15-17, 2008;** South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	Sample Identification			
		SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Base Neutrals					
Acenaphthene	20	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Anthracene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzo(a)anthracene	0.002	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzo(a)pyrene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzo(b)fluoranthene	0.002	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzo(g,h,i)perylene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzo(k)fluoranthene	0.002	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Chrysene	0.002	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Diethyl phthalate	50	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
Dimethyl phthalate	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Butyl benzyl phthalate	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Di-n-butylphthalate	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Di-n-octylphthalate	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Bis(2-ethylhexyl)phthalate	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Chloronapthalene	10	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Hexachlorobenzene	0.004	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Hexachloroethane	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Hexachlorcyclopentadiene	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Hexachlorbutadiene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
N-Nitroso-di-n-propylamine	50	ND< 10.0	ND< 320	ND< 10.0	ND< 10.0
N-Nitrosodiphenylamine	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
N-Nitrosodimethylamine	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Isophorone	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzyl alcohol	50	ND<25.0	ND<25.0	ND<25.0	ND<25.0
Dibenzofuran	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Methylnapthalene	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0

Notes:
1 – Standards are for Class GA groundwater as established in 6NYCRR Part 700-705.
All concentrations are in ug/kg (ppb) unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standards;
NE = No standard established.
MDL = Method Detection Limit

Table 7 (cont'd). **Semi-Volatile Organic Compounds (SVOCs) in Groundwater Samples;** USEPA Method 8270; collected **July 15-17, 2008;** South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	Sample Identification			
		SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Base Neutrals					
Dibenzo(a,h)anthracene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Fluoranthene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Fluorene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Indeno(1,2,3-cd)pyrene	0.002	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Napthalene	10	**18.0**	ND< 10.0	ND< 10.0	ND< 10.0
Phenanthrene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Pyrene	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Acenaphthylene	20	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
1,2-Dichlorobenzene*	3	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
1,3-Dichlorobenzene*	3	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
1,4-Dichlorobenzene*	3	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
1,2,4-Trichlorobenzene*	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Nitrobenzene	0.4	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,4-Dinitroltoluene*	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,6-Dinitroltoluene	5	ND< 10.0	ND< 332	ND< 10.0	ND< 10.0
Bis(2-chloroethyl)ether*	10	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Bis(2-chloroisopropyl)ether*	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Bis(2-chlorethoxy)methane*	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
4-Bromophenyl phenyl ether*	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
4-Chlorophenyl phenyl ether*	50	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Benzidine*	5	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
3,3'-Dichlorobenzidine	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
4-Chloroaniline	5	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Nitroaniline	5	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
3-Nitroaniline	5	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
4-Nitroaniline*	5	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0

Notes:
1 - Standards are for Class GA groundwater according to 6NYCRR Part 700-705.\
All concentrations are in ug/kg (ppb) unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standards;
NE = No standard established.
MDL = Method Detection Limit

Table 7 (cont'd). **Semi-Volatile Organic Compounds (SVOCs) in Groundwater Samples;** USEPA Method 8270; collected **July 15-17, 2008;** South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	Sample Identification			
		SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Acids					
Phenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Chlorophenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,4-Dichlorophenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,6-Dichlorophenol*	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,4,5-Trichlorophenol	1	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
2,4,6-Trichlorophenol*	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
Pentachlorophenol	1	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
4-Chloro-3-methylphenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Methylphenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
3&4-Methylphenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2,4-Dimethylphenol*	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
2-Nitrophenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
4-Nitrophenol	1	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
2,4-Dinitrophenol	1	ND< 10.0	ND< 10.0	ND< 10.0	ND< 10.0
4,6-Dinitro-2-methylphenol*	1	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0
Benzoic acid*	50	ND< 25.0	ND< 25.0	ND< 25.0	ND< 25.0

Notes:
1 - Standards are for Class GA groundwater according to 6NYCRR Part 700-705.
All concentrations are in ug/kg (ppb) unless otherwise indicated;
Boldface type designates those compounds detected at concentrations exceeding NYSDEC standards;
NE = No standard established.
MDL = Method Detection Limit

Table 8. **TAL Metals in Groundwater Samples;** USEPA Method 6010; collected **July 15, 2008;** South Bronx Charter School, Bronx, New York;
PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	SB-1 GW	SB-1GW F	SB-2 GW	SB-2 GW F	SB-4 GW	SB-4 GW F	SB-5 GW	SB-5 GW F
Inorganic Parameters									
Aluminum	NE	426	ND<0.200	382	0.340	9.30	ND<0.200	2.55	ND<0.200
Antimony	.003	ND<0.060	ND<0.060	ND<0.060	ND<0.060	ND<0.060	ND<0.060	ND<0.060	ND<0.060
Arsenic	.025	**1.40**	**0.600**	ND<0.005	ND<0.005	0.008	ND<0.005	ND<0.005	ND<0.005
Barium	1.00	**3.53**	0.066	3.52	0.031	0.112	0.044	0.204	0.157
Beryllium	0.003	**0.018**	ND<0.005	**0.029**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Cadmium	0.005	**0.046**	ND<0.005	**0.020**	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Calcium	NE	228	71.3	261	35.1	58.9	59.3	86.2	83.4
Chromium	0.050	**0.816**	ND<0.010	**0.808**	ND<0.010	ND<0.010	0.045	ND<0.010	ND<0.010
Cobalt	NE	0.367	ND<0.010	0.408	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Copper	0.200	**6.17**	ND<0.010	**1.72**	ND<0.010	0.041	ND<0.010	ND<0.010	ND<0.010
Iron	0.300	**1310**	0.239	**1620**	0.335	**7.73**	0.173	**6.72**	**1.29**
Lead	0.025	**10.5**	ND<0.005	**3.67**	ND<0.005	0.013	ND<0.005	ND<0.005	ND<0.005
Magnesium	35000000	123	4.05	150	2.53	6.90	5.34	40.4	38.4
Manganese	300000	19.8	0.104	30.1	0.134	0.182	0.084	2.37	2.22
Mercury	0.007	**0.0093**	ND<0.0002	0.0036	ND<0.0002	0.0015	ND<0.0002	ND<0.0002	ND<0.0002
Nickel	0.100	**0.739**	ND<0.040	**0.635**	ND<0.040	ND<0.040	**0.161**	ND<0.040	ND<0.040
Potassium	NE	181	17.9	349	11.7	15.9	14.2	26.6	25.3
Selenium	0.010	ND<0.005	ND<0.005	**0.0254**	ND<0.005	0.005	0.005	ND<0.005	ND<0.005
Silver	0.050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Sodium	NE	44.4	72.2	46.3	77.4	92.2	95.0	137	134
Thallium	0.005	ND<0.006	ND<0.006	ND<0.006	ND<0.006	ND<0.006	**0.006**	ND<0.006	ND<0.006
Vanadium	NE	0.945	ND<0.010	0.911	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Zinc	2000000	32.4	ND<0.020	11.8	ND<0.020	0.049	ND<0.020	ND<0.020	ND<0.020

Notes:
1 – Standards are for Class GA groundwater as established in 6NYCRR Part 700-705.
All concentrations are in mg/L unless otherwise indicated;
F = Filtered sample
NE = No standard established.
Boldface designates those compounds detected at concentrations exceeding NYSDEC standards.

Table 9. **PCBs in Groundwater Samples;** USEPA Method 8082; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Polychlorinated Biphenyls					
PCB 1016	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1221	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1232	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1242	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1248	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1254	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB 1260	0.09	ND<1.0	ND<1.0	ND<1.0	ND<1.0
PCB Total	0.09	ND	ND	ND	ND

Notes:
1 - Standards are for Class GA groundwater according to 6NYCRR Part 700-705.
NE = Not Established
Boldface type indicates those parameters which exceed NYSDEC standards.
Units are in ug/l unless otherwise stated.

Table 10. **Pesticides in Groundwater Samples**; USEPA Method 8081; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	NYSDEC Limit[1]	SB-1 GW	SB-2 GW	SB-4 GW	SB-5 GW
Pesticides					
Aldrin	ND<0.01	ND<0.100	ND<0.100	ND<0.100	ND<0.100
alpha-BHC	ND<0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
beta-BHC	ND<0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
delta-BHC	ND<0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
gamma-BHC (Lindane)	ND<0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
alpha-Chlordane	0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
gamma-Chlordane	0.05	ND<0.100	ND<0.100	ND<0.100	ND<0.100
4,4'-DDD	0.3	ND<0.100	ND<0.100	ND<0.100	ND<0.100
4,4'-DDE	0.2	ND<0.100	ND<0.100	ND<0.100	ND<0.100
4,4'-DDT	0.2	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Dieldrin	0.004	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Endosulfan I	NE	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Endosulfan II	NE	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Endosulfan sulfate	NE	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Endrin	NE	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Endrin aldehyde	5	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Heptachlor	0.04	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Heptachlor epoxide	0.03	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Methoxychlor	35	ND<0.100	ND<0.100	ND<0.100	ND<0.100
Toxaphene	0.06	ND<5.00	ND<5.00	ND<5.00	ND<5.00

Notes:
1 – Standards are for Class GA groundwater as established in 6NYCRR Part 700-705.
NE = Not Established
Boldface type indicates those parameters which exceed NYSDEC standards.
Units are in ug/l unless otherwise stated

Table 1. **Volatile Organic Compounds (VOCs) in Soil Boring Samples;** USEPA Method 8260; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Volatile Organic Compounds										
Bromodichloromethane	75-27-4	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Bromomethane	74-83-9	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Bromoform	75-25-2	NE	NE	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
Carbon tetrachloride	56-23-5	760	2,400	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
Chloroethane	75-00-3	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Chloromethane	74-87-3	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
2-Chloroethyl vinyl ether	110-75-8	NE	NE	ND<63.2	ND<42.1	ND<35.8	ND<48.3	ND<44.4	ND<44.3	ND<45.6
Chloroform	67-66-3	370	49,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Dibromochloromethane	124-48-1	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,1-Dichloroethane	75-34-3	270	26,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,2-Dichloroethane	107-06-2	20	3,100	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,1-Dichloroethene	75-35-4	330	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
cis-1,2-Dichloroethene	156-59-2	250	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
trans-1,2-Dichloroethene	156-60-5	190	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,2-Dichloropropane	78-87-5	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
cis-1,3-Dichloropropene	10061-01-5	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
trans-1,3-Dichloropropene	10061-02-6	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Methylene chloride	75-09-2	50	100,000	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
1,1,2,2-Tetrachloroethane	79-34-5	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Tetrachloroethene	127-18-4	1,300	19,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,1,1-Trichloroethane	71-55-6	680	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,1,2-Trichloroethane	79-00-5	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Trichloroethene	79-01-6	470	21,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Trichlorofluoromethane	75-69-4	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Vinyl Chloride	75-01-4	20	900	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Benzene	71-43-2	60	4,800	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Chlorobenzene	108-90-7	1,100	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Ethylbenzene	100-41-4	1,000	41,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Toluene	108-88-3	700	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
m/p-Xylene	1330-20-7	260	100,000	31.3	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
o-Xylene	1330-20-7	260	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Styrene	100-42-5	NE	NE	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
1,2-Dichlorobenzene	95-50-1	1,100	100,000	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
1,3-Dichlorobenzene	541-73-1	2,400	49,000	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
1,4-Dichlorobenzene	106-46-7	1,800	13,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Acetone	67-64-1	50	100,000	**318**	**154**	**125**	**73.8**	**107**	**70.5**	**85.1**
2-Butanone	78-93-3	120	100,000	ND<63.2	ND<42.1	ND<35.8	ND<48.3	ND<44.4	ND<44.3	ND<45.6
2-Hexanone	591-78-6	NE	NE	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
4-Methyl-2-pentanone	108-10-1	NE	Ne	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
Carbon disulfide	75-15-0	NE	NE	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Vinyl acetate	108-05-4	NE	NE	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
n-Butylbenzene	104-51-8	12,000	100,000	66	ND<42.1	ND<35.8	ND<48.3	ND<44.4	ND<44.3	ND<45.6
sec-Butylbenzene	135-98-8	11,000	100,000	20	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
tert-Butylbenzene	98-06-6	5,900	100,000	ND<31.6	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
n-propylbenzene	103-65-1	3,900	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13
Isopropylbenzene	98-82-8	NE	NE	ND<63.2	ND<42.1	ND<35.8	ND<48.3	ND<44.4	ND<44.3	ND<45.6
p-Isopropyltoluene	99-87-6	NE	NE	ND<63.2	ND<42.1	ND<35.8	ND<48.3	ND<44.4	ND<44.3	ND<45.6
Naphthalene	91-20-3	12,000	100,000	217	ND<21.0	ND<17.9	ND<24.2	ND<22.2	ND<22.1	ND<22.8
1,2,4-Trimethylbenzene	95-63-6	3,600	52,000	27.1	ND<8.42	7.87	ND<9.66	ND<8.87	ND<8.85	ND<9.13
1,3,5-Trimethylbenzene	108-67-8	8,400	52,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13

Table 1. **Volatile Organic Compounds (VOCs) in Soil Boring Samples;** USEPA Method 8260; collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Volatile Organic Compounds										
Methyl tert-butyl ether	1634-04-4	930	100,000	ND<12.6	ND<8.42	ND<7.16	ND<9.66	ND<8.87	ND<8.85	ND<9.13

Notes:

1 – Standards are for soils according NYSDEC Part 375, *Unrestricted Use Soil Cleanup Objectives* ;

3 - Standards are for soils according NYSDEC Part 375, *Restricted-Residential Use Soil Cleanup Objectives* ;

All concentrations are in ug/kg unless otherwise indicated;

Boldface type designates those compounds detected at concentrations exceeding NYSDEC Unrestricted Use Limit;

ND = Not detected, detection limit listed;

NE = No standard established.

Table 2. **Semi-Volatile Organic Compounds (SVOCs) in Soil Boring Samples;** USEPA Method 8270 collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Semi-Volatile Organic Compounds										
Acenaphthene	83-32-9	20,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Anthracene	120-12-7	100,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzo(a)anthracene	56-55-3	1,000	1,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzo(a)pyrene	50-32-8	1,000	1,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzo(b)fluoranthene	205-99-2	1,000	1,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzo(g,h,i)perylene	191-24-2	100,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzo(k)fluoranthene	207-08-9	800	3,900	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Chrysene	218-01-9	1,000	3,900	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Diethyl phthalate	84-66-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Dimethyl phthalate	131-11-3	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
Butylbenzylphthalate	85-68-7	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Di-n-butylphthalate	84-74-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Di-n-octylphthalate	117-84-0	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Bis(2-ethylhexyl)phthalate	117-81-7	NE	NE	836	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Chloronaphthalene	91-58-7	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Hexachlorobenzene	118-74-1	330	1,200	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Hexachloroethane	67-72-1	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Hexachlorocyclopentadiene	77-47-4	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Hexachlorobutadiene	87-68-3	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
N-Nitroso-di-n-propylamine	621-64-7	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
N-Nitrosodiphenylamine	86-30-6	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
N-Nitrosodimethylamine	62-75-9	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Isophorone	78-59-1	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzyl alcohol	100-51-6	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
Dibenzofuran	132-64-9	7,000	59,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Methylnapthalene	91-57-6	NE	NE	915	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Dibenz(a,h)anthracene	53-70-3	330	330	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Fluoranthene	206-44-0	100,000	100,000	367	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Fluorene	86-73-7	30,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Indeno(1,2,3-cd)pyrene	193-39-5	500	500	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Napthalene	91-20-3	12,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Phenanthrene	85-01-8	100,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Pyrene	129-00-0	100,000	100,000	354	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Acenaphthylene	208-96-8	100,000	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
1,2-Dichlorobenzene	95-50-1	1,100	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
1,3-Dichlorobenzene	541-73-1	2,400	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
1,4-Dichlorobenzene	106-46-7	1,800	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
1,2,4-Trichlorobenzene	120-82-1	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Nitrobenzene	98-95-3	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2,4-Dinitrotoluene	121-14-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2,6-Dinitrotoluene	606-20-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Bis(2-chloroethyl)ether	111-44-4	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Bis(2-chloroisopropyl)ether	39638-32-9	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Bis(2-chlorethoxy)methane	111-91-1	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
4-Bromophenyl phenyl ether	101-55-3	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
4-Chlorophenyl phenyl ether	7005-72-3	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Benzidine	92-87-5	NE	NE	ND<817	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
3,3'-Dichlorobenzidine	91-94-1	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
4-Chloroaniline	106-47-8	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Nitroaniline	88-74-4	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
3-Nitroaniline	99-09-2	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
4-Nitroaniline	100-01-6	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
Phenol	108-95-2	330	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Chlorophenol	95-57-8	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2,4-Dichlorophenol	120-83-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295

Table 2. **Semi-Volatile Organic Compounds (SVOCs) in Soil Boring Samples;** USEPA Method 8270 collected **July 15-17, 2008**; South Bronx Charter School, Bronx, New York; PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Semi-Volatile Organic Compounds										
2,6-Dichlorophenol	87-65-0	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2,4,5-Trichlorophenol	95-95-4	NE	NE	ND<817	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
2,4,6-Trichlorophenol	88-06-2	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
Pentachlorophenol	87-86-5	800	6,700	ND<817	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
4-Chloro-3-methylphenol	59-50-7	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Methylphenol	95-48-7	330	100,000	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
3&4-Methylphenol	108-39-4	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2,4-Dimethylphenol	105-67-9	NE	NE	ND<327	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
2-Nitrophenol	88-75-5	NE	NE	ND<817	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
4-Nitrophenol	100-02-7	NE	NE	ND<327	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
2,4-Dinitrophenol	51-28-5	NE	NE	ND<817	ND<332	ND<320	ND<295	ND<311	ND<293	ND<295
4,6-Dinitro-2-methylphenol	534-52-1	NE	NE	ND<817	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737
Benzoic acid	66-85-0	NE	NE	ND<817	ND<830	ND<801	ND<736	ND<777	ND<734	ND<737

Notes:

1 - Standards are for soils according NYSDEC Part 375, *Unrestricted Use Soil Cleanup Objectives* ;

3 - Standards are for soils according NYSDEC Part 375, *Restricted-Residential Use Soil Cleanup Objectives* ;

All concentrations are in ug/kg (ppb) unless otherwise indicated;

Boldface type designates those compounds detected at concentrations exceeding NYSDEC Unrestricted Use standards;

NE = No standard established;

MDL = Method Detection Limit.

Table 3. **TAL Metals in Soil Samples;** USEPA Method 6010 and 7471;
collected July 15-17, 2008; South Bronx Charter School, Port Morris, New York;
PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Inorganic Compounds										
Aluminum	*7429-90-5*	NE	NE	7,830	2,860	6,910	15,400	24,000	23,200	12,800
Antimony	7440-36-0	NE	NE	ND<6.50	ND<4.81	ND<6.34	ND<5.06	ND<6.18	ND<517	33.7
Arsenic	7440-38-2	13	16	3.27	0.884	ND<0.529	ND<0.463	ND<0.515	ND<0.430	ND<0.370
Barium	7440-39-3	350	400	102	15.9	70.1	170	302	296	124
Beryllium	7440-41-7	7.2	72	ND<0.542	ND<0.401	ND<0.529	ND<0.463	ND<0.515	ND<0.430	ND<0.370
Cadmium	7440-43-9	2.5	4.3	**5.06**	ND<0.401	ND<0.529	ND<0.463	ND<0.515	ND<0.430	ND<0.370
Calcium	7440-70-2	NE	NE	25,700	469	1,690	4,940	3,600	2,480	9,980
Chromium	7440-47-3	30*	180*	**36.4**	16.3	18	**38.5**	**37.4**	**39.4**	22.8
Cobalt	7440-48-4	NE	NE	7.57	3.08	8.76	21.4	31	30.1	11.9
Copper	7440-50-8	50	270	29.2	4.27	6.58	48.9	32.3	15.9	23.7
Iron	7439-89-8	NE	NE	35,900	8,410	15,500	39,900	46,900	42,400	21,300
Lead	7439-92-1	63	400	**238**	21.5	**69**	**144**	**65.6**	3.18	**11,200**
Magnesium	7439-95-4	NE	NE	3,610	695	3,400	8,100	9,570	9,730	5,320
Manganese	7439-96-5	1,600	2,000	270	115	270	608	835	769	365
Total Mercury	None	0.12**	5.8**	0.112	ND<0.0082	0.0222	**0.7751**	0.014	ND<0.0075	**1.004**
Nickel	7440-02-0	30	310	19.2	9.57	12.8	23.7	29.4	29.6	13.5
Potassium	7440-09-7	NE	NE	2,080	670	3,950	8,110	21,800	21,600	5,290
Selenium	7782-49-2	36	NE	ND<0.542	ND<0.401	ND<0.529	ND<0.463	ND<0.515	ND<0.430	ND<0.370
Silver	7440-22-4	36	NE	ND<1.08	ND<0.803	ND<1.06	ND<0.926	ND<1.03	ND<0.862	ND<.868
Sodium	7440-23-5	NE	NE	218	ND<80.3	ND<106	143	251	241	363
Thallium	7440-28-0	NE	NE	ND<0.650	ND<0.481	ND<0.634	ND<0.556	ND<0.618	ND<0.517	ND<0.444
Vanadium	7440-62-2	NE	NE	24.4	10.4	23.2	53.7	56.3	57	31.8
Zinc	7440-66-6	109	10,000	**1,140**	16.8	55.6	88.5	**176**	**116**	67.3

Notes:

1 – Standards are for soils according NYSDEC Part 375, *Unrestricted Use Soil Cleanup Objectives* ;

3 - Standards are for soils according NYSDEC Part 375, *Restricted-Residential Use Soil Cleanup Objectives* ;

All concentrations are in mg/kg unless otherwise indicated;

* NYSDEC limit for trivalent Chromium is listed;

** NYSDEC limit for Mercury (inorganic salts) is listed (see Technical Support Document Table 5.6-1);

Boldface type designates those compounds detected at concentrations exceeding NYSDEC Unrestricted Use Limit;

Boldface and gray-highlighted type designates those compounds detected at concentrations exceeding NYSDEC Restricted-Residential Limits;

ND = Not detected, detection limit listed;

NE = No standard established.

Table 4. **PCBs in Soil Samples;** USEPA Method 8082; collected **July 15-17, 2008;**
South Bronx Charter School, Port Morris, New York;
PVE Sheffler File # 160862

				Sample Identification						
Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
PCBs										
Aroclor 1016	12674-11-2	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1221	11104-28-2	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1232	11141-16-5	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1242	53469-21-9	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1248	12672-29-6	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1254	11097-69-1	NE	NE	ND<0.324	ND<0.353	ND<0.331	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Aroclor 1260	11096-82-5	NE	NE	ND<0.324	ND<0.353	0.865	ND<0.309	ND<0.326	ND<0.304	ND<0.311
Total PCBs	1336-36-3	0.1	1	ND	ND	**0.865**	ND	ND	ND	ND

Notes:

1 – Standards are for soils according NYSDEC Part 375, *Unrestricted Use Soil Cleanup Objectives* ;

3 - Standards are for soils according NYSDEC Part 375, *Restricted-Residential Use Soil Cleanup Objectives* ;

All concentrations are in mg/kg unless otherwise indicated;

Boldface type designates those compounds detected at concentrations exceeding NYSDEC Unrestricted Use Limit;

ND = Not detected, detection limit listed;

NE = No standard established.

Table 5. **Pesticides in Soil Samples;** USEPA Method 8081;
collected **July 15-17, 2008**; South Bronx Charter School, Port Morris, New York;
PVE Sheffler File #160862

Chemical Constituent	CAS Number	NYSDEC Limit[1]	NYSDEC Limit[3]	Sample Identification SB-1 (2-4.5')	SB-2 (2-4')	SB-2 (4-6')	SB-3 (0-1')	SB-4 (1-2')	SB-4 (2.5')	SB-7 (1-2')
Pesticides										
Aldrin	309-00-2	5	97	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
alpha-BHC	319-84-6	20	480	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
beta-BHC	319-85-7	36	360	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
delta-BHC	319-86-8	40	100,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
gamma-BHC	58-89-9	60	1,300	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
gamma-Chlordane	5566-34-7	NE	NE	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
alpha-Chlordane	5103-71-9	94	4,200	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
4,4'-DDD	72-54-8	3.3	13,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
4,4'-DDE	72-55-9	3.3	8,900	ND<3.26	ND<3.32	**9.47**	ND<2.92	ND<3.11	ND<2.91	ND<2.92
4,4'-DDT	50-29-3	3.3	7,900	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Dieldrin	60-57-1	5	200	**5.69**	ND<3.32	**29.5**	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Endosulfan I	959-98-8	2,400	24,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Endosulfan II	33213-65-9	2,400	24,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Endosulfan Sulfate	1031-07-8	2,400	24,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Endrin	72-20-8	14	11,000	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Endrin Aldehyde	7421-93-4	NE	NE	ND<3.26	ND<3.32	3.73	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Heptachlor	76-44-8	42	2,100	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Heptachlor Epoxide	1024-57-3	NE	NE	ND<3.26	ND<3.32	ND<3.21	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Methoxychlor	72-43-5	NE	NE	ND<3.26	ND<3.32	5.23	ND<2.92	ND<3.11	ND<2.91	ND<2.92
Toxaphene	8001-35-2	NE	NE	ND<163	ND<166	ND<161	ND<146	ND<155	ND<145	ND<146

Notes:

1 – Standards are for soils according NYSDEC Part 375, *Unrestricted Use Soil Cleanup Objectives* ;

3 - Standards are for soils according NYSDEC Part 375, *Restricted-Residential Use Soil Cleanup Objectives* ;

All concentrations are in ug/kg unless otherwise indicated;

Boldface type designates those compounds detected at concentrations exceeding NYSDEC Unrestricted Use Limit;

ND = Not detected, detection limit listed;

NE = No standard established.

Table 11. **Volatile Organic Compounds (VOCs) in Vapor Samples**
USEPA TO-15; collected **April 25, 2013**
South Bronx Charter School, Bronx, New York
PVE Sheffler File #160862

		NYSDOH 2003 Median Concentration (1)	NYSDOH 2003 99th Percentile Concentration (2)	Sample Identification														
				SS-1			SS-2			SS-3			SS-4			IA-1 (INDOOR)		
				sub-slab sample (ground floor)			sub-slab sample (ground floor)			sub-slab sample (ground floor)			sub-slab sample (ground floor)			indoor air sample (ground floor)		
Constituent	CAS number			Result	Detection Limit	Qualifier	Result	Detection Limit	Qualifier	Result	Detection Limit	Qualifier	Result	Detection Limit	Qualifier	Result	Detection Limit	Qualifier
1,1,1-Trichloroethane	71-55-6	0.3	41	ND<	0.83		ND<	0.83		**1.9**	0.83		ND<	0.83		ND<	0.83	
1,1,2,2-Tetrachloroethane	79-34-5	<0.25	0.8	ND<	1.0		ND<	1.0		ND<	1.0		ND<	1.0		ND<	1.0	
1,1,2-Trichloroethane	79-00-5	<0.25	1	ND<	0.83		ND<	0.83		ND<	0.83		ND<	0.83		ND<	0.83	
1,1-Dichloroethane	75-34-3	<0.25	0.4	ND<	0.62		ND<	0.62		ND<	0.62		ND<	0.62		ND<	0.62	
1,1-Dichloroethene	75-35-4	<0.25	6.3	ND<	0.60		ND<	0.60		ND<	0.60		ND<	0.60		ND<	0.60	
1,2,4-Trichlorobenzene	120-82-1	<0.25	26	ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1	
1,2,4-Trimethylbenzene	95-63-6	1.9	35	**3.2**	0.75		**8.3**	0.75		**4.6**	0.75		**2.6**	0.75		1.1	0.75	
1,2-Dibromoethane	106-93-4	<0.25	<0.25	ND<	1.2		ND<	1.2		ND<	1.2		ND<	1.2		ND<	1.2	
1,2-Dichlorobenzene	95-50-1	<0.25	2.3	ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92	
1,2-Dichloroethane	107-06-2	<0.25	0.4	ND<	0.62		ND<	0.62		ND<	0.62		ND<	0.62		ND<	0.62	
1,2-Dichloropropane	78-87-5	<0.25	9	ND<	0.70		ND<	0.70		ND<	0.70		ND<	0.70		ND<	0.70	
1,3,5-Trimethylbenzene	108-67-8	0.6	25	**0.65**	0.75	J	**1.5**	0.75		**1.0**	0.75		**0.65**	0.75	J	ND<	0.75	
1,3-butadiene	106-99-0	NA	NA	ND<	0.34		ND<	0.34		ND<	0.34		ND<	0.34		ND<	0.34	
1,3-Dichlorobenzene	541-73-1	<0.25	1.6	ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92	
1,4-Dichlorobenzene	106-46-7	<0.25	25	ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92	
1,4-Dioxane	123-91-1	NA	NA	ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1	
2,2,4-trimethylpentane	540-84-1	NA	NA	0.62	0.71	J	1.9	0.71		1.0	0.71		1.1	0.71		0.47	0.71	J
4-ethyltoluene	622-96-8	2.1	120	0.60	0.75	J	1.5	0.75		0.90	0.75		0.50	0.75	J	ND<	0.75	
Acetone	67-64-1	21	200	**39**	14		**140**	14		**86**	14		**96**	14		**48**	7.2	
Allyl chloride	107-05-1	NA	NA	ND<	0.48		ND<	0.48		ND<	0.48		ND<	0.48		ND<	0.48	
Benzene	71-43-2	2.1	120	0.71	0.49		0.71	0.49		0.97	0.49		0.68	0.49		0.65	0.49	
Benzyl chloride	100-44-7	NA	NA	ND<	0.88		ND<	0.88		ND<	0.88		ND<	0.88		ND<	0.88	
Bromodichloromethane	75-27-4	NA	NA	ND<	1.0		ND<	1.0		ND<	1.0		ND<	1.0		ND<	1.0	
Bromoform	75-25-2	NA	NA	ND<	1.6		ND<	1.6		ND<	1.6		ND<	1.6		ND<	1.6	
Bromomethane	74-83-9	<0.25	3.2	ND<	0.59		ND<	0.59		ND<	0.59		ND<	0.59		ND<	0.59	
Carbon disulfide	75-15-0	NA	NA	ND<	0.47		ND<	0.47		ND<	0.47		ND<	0.47		ND<	0.47	
Carbon tetrachloride	56-23-5	<0.25	3.2	ND<	0.96		ND<	0.96		ND<	0.96		ND<	0.96		**0.58**	0.26	
Chlorobenzene	108-90-7	<0.25	3.2	ND<	0.70		ND<	0.70		ND<	0.70		ND<	0.70		ND<	0.70	
Chloroethane	75-00-3	<0.25	0.9	ND<	0.40		ND<	0.40		ND<	0.40		**0.94**	0.40		ND<	0.40	
Chloroform	67-66-3	<0.25	13	ND<	0.74		ND<	0.74		ND<	0.74		ND<	0.74		ND<	0.74	
Chloromethane	74-87-3	0.5	14	ND<	0.31		ND<	0.31		ND<	0.31		ND<	0.31		**1.2**	0.31	
cis-1,2-Dichloroethene	156-59-2	<0.25	4.6	ND<	0.60		ND<	0.60		**0.60**	0.60		ND<	0.60		ND<	0.60	
cis-1,3-Dichloropropene	10061-01-5	<0.25	2.1	ND<	0.69		ND<	0.69		ND<	0.69		ND<	0.69		ND<	0.69	
Cyclohexane	110-82-7	0.8	88	ND<	0.52		**0.87**	0.52		ND<	0.52		ND<	0.52		ND<	0.52	
Dibromochloromethane	124-48-1	NA	NA	ND<	1.3		ND<	1.3		ND<	1.3		ND<	1.3		ND<	1.3	
Ethyl acetate	141-78-6	NA	NA	ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92		ND<	0.92	
Ethylbenzene	100-41-4	1	26	0.62	0.66	J	**1.2**	0.66		0.93	0.66		0.93	0.66		0.71	0.66	
Freon 11	75-69-4	NA	NA	1.4	0.86		1.4	0.86		1.5	0.86		1.7	0.86		1.5	0.86	
Freon 113	76-13-1	NA	NA	ND<	1.2		ND<	1.2		28	23		2.6	1.2		ND<	1.2	
Freon 114	76-14-2	<0.25	23	ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1		ND<	1.1	
Freon 12	75-71-8	<0.25	180	**2.8**	0.75		**7.8**	0.75		**3.2**	0.75		**3.3**	0.75		**3.3**	0.75	
Heptane	142-82-5	2.8	72	ND<	0.62		ND<	0.62		1.2	0.62		0.92	0.62		0.71	0.62	
Hexachloro-1,3-butadiene	87-68-3	<0.25	29	ND<	1.6		ND<	1.6		ND<	1.6		ND<	1.6		ND<	1.6	
Hexane	110-54-3	1.6	93	1.2	0.54		**1.6**	0.54		**1.6**	0.54		**2.7**	0.54		ND<	0.54	
Isopropyl alcohol	67-63-0	NA	NA	1.8	0.37		4.2	0.37		5.4	0.37		4.4	0.37		ND<	0.37	
m&p-Xylene	79601-23-1	1.5	46	**2.0**	1.3		**4.7**	1.3		**2.9**	1.3		**2.8**	1.3		**1.6**	1.3	
Methyl Butyl Ketone	591-78-6	0.3	16	ND<	1.2		ND<	1.2		ND<	1.2		ND<	1.2		ND<	1.2	
Methyl Ethyl Ketone	78-93-3	3.4	79	1.4	0.90		2.2	0.90		2.0	0.90		2.6	0.90		2.1	0.90	
Methyl Isobutyl Ketone	108-10-1	0.3	16	**1.7**	1.2		**5.3**	1.2		**4.2**	1.2		**3.2**	1.2		ND<	1.2	
Methyl tert-butyl ether	1634-04-4	0.8	230	ND<	0.55		ND<	0.55		ND<	0.55		ND<	0.55		ND<	0.55	
Methylene chloride	75-09-2	1.4	310	0.67	0.53		0.53	0.53		0.67	0.53		0.85	0.53		0.64	0.53	
o-Xylene	95-47-6	1.1	32	0.71	0.66		**2.1**	0.66		**1.2**	0.66		0.97	0.66		0.57	0.66	J
Propylene	115-07-1	NA	NA	ND<	0.26		ND<	0.26		ND<	0.26		ND<	0.26		ND<	0.26	
Styrene	100-42-5	0.3	6.2	ND<	0.65		ND<	0.65		ND<	0.65		ND<	0.65		ND<	0.65	
Tetrachloroethylene	127-18-4	0.3	20	**2.3**	1.0		**3.2**	1.0		**5.9**	1.0		**4.1**	1.0		**0.97**	1.0	J
Tetrahydrofuran	109-99-9	<0.25	19	ND<	0.45		ND<	0.45		ND<	0.45		ND<	0.45		ND<	0.45	
Toluene	108-88-3	9.6	300	2.8	0.57		4.1	0.57		2.9	0.57		3.8	0.57		2.3	0.57	
trans-1,2-Dichloroethene	156-60-5	NA	NA	ND<	0.60		ND<	0.60		ND<	0.60		ND<	0.60		ND<	0.60	
trans-1,3-Dichloropropene	10061-02-6	<0.25	<0.25	ND<	0.69		ND<	0.69		ND<	0.69		ND<	0.69		ND<	0.69	
Trichloroethene	79-01-6	<0.25	7.4	ND<	0.82		ND<	0.82		**1.2**	0.82		ND<	0.82		ND<	0.22	
Vinyl acetate	108-05-4	NA	NA	ND<	0.54		ND<	0.54		ND<	0.54		ND<	0.54		ND<	0.54	
Vinyl Bromide	593-60-2	NA	NA	ND<	0.67		ND<	0.67		ND<	0.67		ND<	0.67		ND<	0.67	
Vinyl chloride	75-01-4	<0.25	0.8	ND<	0.39		ND<	0.39		ND<	0.39		ND<	0.39		ND<	0.10	

Notes:

All units are $\mu g/m^3$ unless otherwise noted

IA prefix represents ambient indoor air samples

Boldface type indicates exceedance of NYSDOH median concentration, October 2006, Appendix C

ND = Not detected at the reporting limit

J = Analyte detected at or below quantitation limits

B =Compound found in associated method blank

E = Estimated, concentration exceeds calibration range

S = Spike recovery outside accepted recovery limits

1- NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006, Appendix C.1 NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997-2003, Indoor Air- Median Result

2- NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006, Appendix C.1 NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997-2003, Indoor Air- 99th Percentile Result

NA = Analyte not analyzed in NYSDOH 2003 study

<u>Appendix 5</u>

Insurance Fact Sheet

FACT SHEET – BIG PROGRAM INSURANCE REQUIREMENTS

Investigation Grants – for a developer or site owner to be eligible for a BIG investigation grant, its environmental consultant(s) must be:

- a Qualified Vendor in the BIG Program; and
- maintain <u>Professional Liability (PL)</u> insurance of $1M per claim and annual aggregate.

Cleanup Grants – for a developer or site owner to be eligible for a BIG cleanup grant:

- Its general contractor or excavation/foundation contractor hired to perform remedial work must maintain:

    a. <u>Commercial General Liability(CGL)</u> insurance of at least $1M per occurrence and $2M in the general aggregate; and

    b. <u>Contractors Pollution Liability (CPL)</u> insurance of at least $1M per occurrence.

    Both policies must list the city, EDC and BRS as additional insureds, include completed operations coverage and be primary and non-contributory to any other insurance the additional insureds may have.
- Its subcontractors who are hired by the general contractor etc. to perform remedial work at a site, including soil brokers and truckers, must also maintain CGL and CPL policies in the amount and with the terms set forth above; and

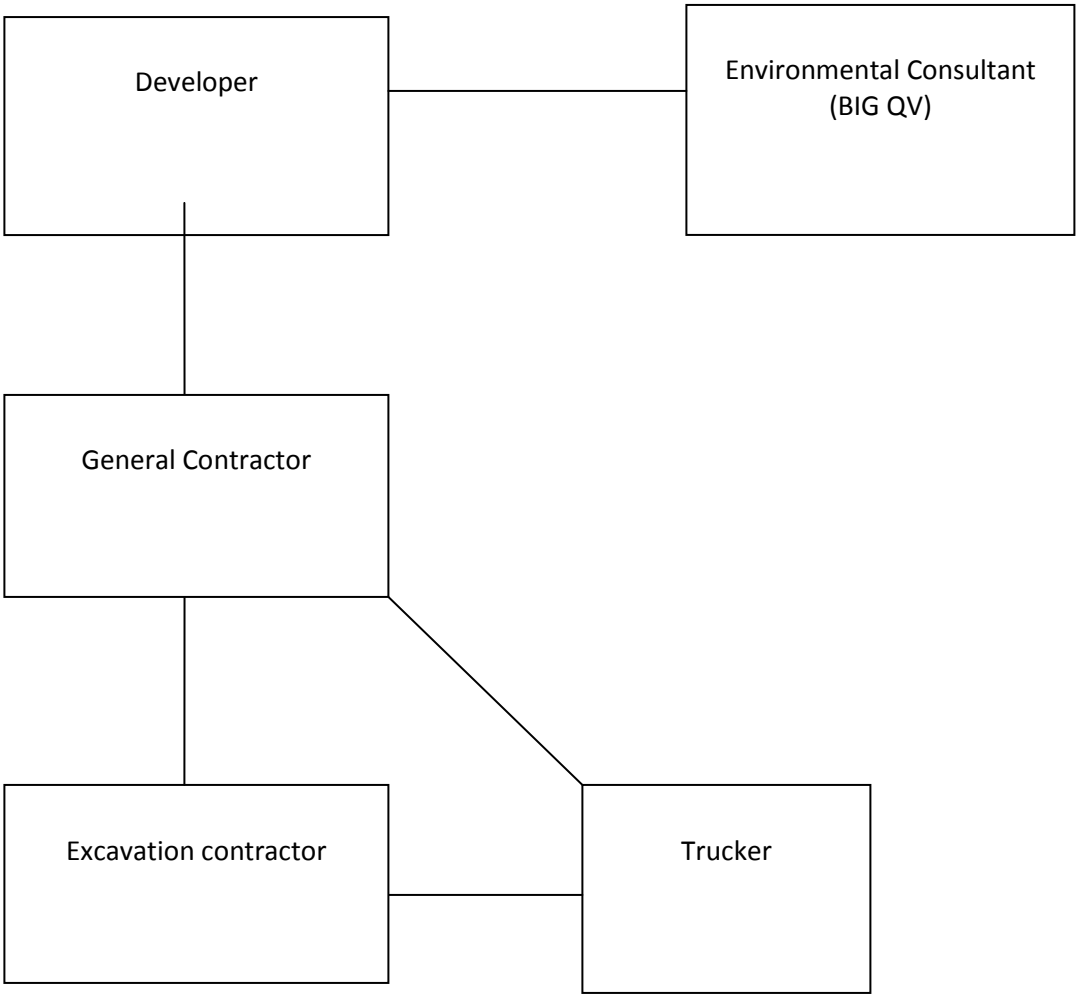
- Its environmental consultant(s) hired to oversee the cleanup must be:
    a. a BIG Qualifed Vendor; and
    b. maintain <u>Professional Liability (PL)</u> insurance of $1M per claim and annual aggregate.

If, in the alternative, the developer hires its environmental consultant to perform the cleanup, the environmental consultant must maintain CGL and CPL insurance in the amount and with the terms set forth above.

A schematic presenting the contractual relationships described above appears on page 2. Parties who must be named as Additional Insureds on Cleanup Grant insurance policies (CGL and CPL) are presented on page 3.

Example of Contractual Relationships for Cleanup Work

The Office of Environmental Remediation's Voluntary Cleanup Plan program requires applicants to identify the parties who are engaged in active remediation of their sites including: the General Contractor hired to remediate and/or the excavation contractor hired to excavate soil from the site and the trucking firm(s) that remove soil from the site for disposal at approved facilit(ies).



The chart above shows contractual relationships that typically exist for projects that are enrolled in the Voluntary Cleanup Program.

BIG Program Additional Insureds

The full names and addresses of the additional insureds required under the Required CGL and Required CPL Policies are as follows:

"City and its officials and employees"
New York City Mayor's Office of Environmental Remediation
253 Broadway, 14th Floor
New York, NY 10007

"NYC EDC and its officials and employees"
New York City Economic Development Corporation
110 William Street
New York, NY 10038

"BIG Grant Administrator and its officials and employees"
Brownfield Redevelopment Solutions, Inc.
739 Stokes Road, Units A & B
Medford, NJ 08055