876 LIVONIA AVENUE

BROOKLYN, NEW YORK

Remedial Investigation Report

NYC VCP Site Number: 13CVCP070K

Prepared for:

Mr. Gary Caiozzo

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REMEDIAL INVESTIGATION

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LIST OF ACRONYMS

Acronym	Definition
AST	Aboveground Storage Tank
CAMP	Community Air Monitoring Plan
C&D	Construction & Demolition
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations
CHASP	Construction Health and Safety Plan
CO	Certificate of Occupancy
CPC	City Planning Commission
DSNY	Department of Sanitation
"E"	E-Designation
EAS	Environmental Assessment Statement
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
EC/IC	Engineering Control and Institutional Control
ELAP	Environmental Laboratory Accreditation Program
FDNY	New York City Fire Department
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
IDW	Investigation Derived Waste
Notice - NNO	Notice of No Objection
Notice - NTP	Notice To Proceed
Notice - NOS	Notice Of Satisfaction
Notice - FNOS	Final Notice of Satisfaction
NYC BSA	New York City Board of Standards and Appeals
NYC DCP	New York City Department of City Planning
NYC DEP	New York City Department of Environmental Protection
NYC DOB	New York City Department of Buildings
NYC DOF	New York City Department of Finance
NYC HPD	New York City Housing Preservation and Development
NYCRR	New York Codes Rules and Regulations
NYC OER	New York City Office of Environmental Remediation

NYS DEC	New York State Department of Environmental Conservation
NYS DEC DER	New York State Department of Environmental Conservation Division of Environmental Remediation
NYS DEC PBS	New York State Department of Environmental Conservation Petroleum Bulk Storage
NYS DOH	New York State Department of Health
NYS DOT	New York State Department of Transportation
OSHA	United States Occupational Health and Safety Administration
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PID	Photo Ionization Detector
PM	Particulate Matter
QEP	Qualified Environmental Professional
RA	Register Architect
RAP	Remedial Action Plan
RCA	Recycled Concrete Aggregate
RCR	Remedial Closure Report
RD	Restrictive Declaration
RI	Remedial Investigation
SCOs	Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-Slab Depressurization System
SVOCs	Semi-Volatile Organic Compounds
USCS	Unified Soil Classification System
USGS	United States Geological Survey
UST	Underground Storage Tank
TAL	Target Analyte List
TCL	Target Compound List
TCO	Temporary Certificate of Occupancy
VB	Vapor Barrier
VOCs	Volatile Organic Compounds

CERTIFICATION

I, David Lorthioir, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the 876 Livonia Avenue (NYC VCP Site No. 13CVCP070K). I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

_____
QEP Name

_____
QEP Signature

_____
Date

EXECUTIVE SUMMARY

The Remedial Investigation Report provides sufficient information for the establishment of, if applicable, remedial action objectives, evaluation of remedial action alternatives and selection of a remedy pursuant to RCNY§ 43-1407(f). The subsurface investigation described in this document is consistent with applicable guidance.

Site Location and Current Usage

The Site is located on the south side of Livonia Avenue, between Warwick Street and Jerome Street in the East New York section of Brooklyn and is identified as Section 4092, Lot 3. A Site Location Map is supplied as Figure 1. The Site is an 800 square foot parcel of land that is approximately 20 feet wide by 40 feet deep. The site is bounded by Livonia Avenue to the north, a single-story masonry commercial building to the east, a private residence to the south and vacant property to the west. The Site is currently vacant and is not improved with any structures. The planned development of the site does not include any merging or subdividing of tax lots.

Summary of Proposed Redevelopment Plan

The proposed use of the Site will consist of single-story (with a partial second story) steel and masonry building constructed slab on grade. The proposed building will occupy approximately 93% of the site and will be utilized for the repair of automobiles. Full 100% build out of the site is not possible due to a one-foot setback required by code. The first floor of the building will be utilized for the purpose of automobile repair. The proposed partial second floor will be utilized as office space. The site is zoned for commercial usage.

Summary of Past Uses of Site and Areas of Concern

A review of ownership records indicated that Mr. Caiozzo has owned the site since 2010. In addition to Mr. Caiozzo, previous owners in the last 10 years include Spider Building Maintenance Inc. and the Urban Group Ltd. Other historical owners include several private individuals and the City of New York. Previous usage of the property includes a private residence, automobile repair and storage and, most recently, as a storage yard. The site is currently vacant, undeveloped land. No site specific Areas of Concern are known to exist.

Summary of the Work Performed under the Remedial Investigation

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);

2. Installed 3 soil borings across the entire project Site, and collected 7 soil samples (including 1 duplicate sample) for chemical analysis from the soil borings to evaluate soil quality;

3. Installed 1 groundwater monitoring well throughout the Site and collected 2 groundwater samples (includes 1 duplicate sample) for chemical analysis to evaluate groundwater quality;

4. Installed 3 soil vapor probes and collected 3 samples for chemical analysis.

Summary of Environmental Findings

1. The elevation of the site is approximately 20 feet above mean sea level.

2. The depth to groundwater at the site was approximately 19 feet below grade.

3. Site specific groundwater flow beneath the site was not determined, but regional groundwater flow is to the south.

4. Depth to bedrock was not determined.

5. Only shallow soil borings were installed, which indicated that fill material, consisting of a mixture of sand and demolition debris, was present to a depth of approximately eight feet below grade.

6. Soil/fill samples collected during the RI showed no PCBs at detectable concentrations. One of the soil samples exhibited detectable concentrations of VOCs, but all of the concentrations were below 40 ppb and were well below Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs). The other two soil samples showed no detectable VOCs. Up to 10 SVOC were identified in shallow samples, but none of these concentrations exceeded Track 1 Unrestricted Use SCOs. SVOC were primarily PAH compounds that are commonly associated with historic fill. No samples exhibited concentrations of metals above Track 1 SCOs with the exception of two samples that detected Zinc slightly above Track

1 SCOs but well below Track 2 Restricted Commercial SCOs. Two pesticides were detected above Track 1 SCOs but well below Track 2 Restricted Commercial SCOs.

7. The groundwater sample collected during the RI showed no detectable concentrations of PCBs, SVOCs or Pesticides. No VOCs were identified above Part 703.5 Class GA Groundwater Quality Standards (GQS) or Guidance Values. The only detected VOC was Tetrachloroethene at 1.8 ug/L, which is below its respective GQS of 5.0 ug/L. Three metals, Manganese, Selenium and Sodium were the only metals identified above their respective GQS.

8. Soil vapor samples collected during the RI showed petroleum and chlorinated VOCs at generally low concentrations. Low detections of compounds usually associated with gasoline, such as Ethanol, Benzene, Toluene, Ethylbenzene and Xylenes, were also detected. In two samples, Tetrachloroethene (PCE) was identified at concentrations of 102 ug/m^3 and 117 ug/m^3. The results for PCE are within the monitoring level ranges for the NYSDOH soil vapor guidance matrix. All three soil vapor samples exhibited concentrations of Acetone (ranging from 75 ug/m^3 to 230 ug/m^3) and Methyl Ethyl Ketone (ranging from 110 ug/m^3 to 167 ug/m^3). Since these compounds were not detected in the soil samples and generally not found in groundwater an offsite source is suspected.

Recommendations

It is EnviroTrac's conclusion that, based upon the evaluation of the data and the information obtained during the performance of the Remedial Investigation, the disposal of hazardous waste, either through site specific activities or the use of historic fill material, has not taken place at the site. However, given that it appears neighboring properties are impacting upon the soil vapor beneath the site, it is EnviroTrac's recommendation that engineering controls be employed in this remedial action to prevent the intrusion of Tetrachloroethene and the other detected VOCs.

REMEDIAL INVESTIGATION REPORT

1.0 INTRODUCTION

Mr. Gary Caiozzo (owner) has retained EnviroTrac Ltd. (ET) to prepare the following Remedial Investigation Report (RIR) for the property located at 876 Livonia Avenue, Brooklyn, New York, Block 4092, Lot 3 (herein referred to as the Site) and project number 13CVCP070K has been assigned to the site by the OER. The Remedial Investigation was performed in accordance with the OER approved Phase II Subsurface Investigation Work Plan. All investigative field work was performed on February 28, 2012. This RIR summarizes the investigation performed, the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

Site Location and Current Usage

The Site is located on the south side of Livonia Avenue, between Warwick Street and Jerome Street in the East New York section of Brooklyn and is identified as Section 4092, Lot 3. A Site Location Map is attached as Figure 1. The Site is a 800 square foot parcel of land that is approximately 20 feet wide by 40 feet deep. The site is bounded by Livonia Avenue to the north, a single-story masonry commercial building to the east, a private residence to the south and vacant property to the west.

The Site is currently vacant and is not improved with any structures. To EnviroTrac's knowledge, the planned development of the site does not include any merging or subdividing of tax lots. To EnviroTrac's knowledge, other than the OER Project Number (11EH-N272K) there are no other project numbers (e.g. NYSDEC Spill, PBS, NYCDEP) associated with the site.

1.2 Proposed Redevelopment Plan

The proposed use of the Site will consist of single-story (with a partial second story) steel and masonry building constructed slab on grade. The proposed building will occupy approximately 93% of the site and will be utilized for the repair of automobiles. Full 100% build out of the site is not possible due to a one-foot setback required by code. The layout of the proposed site development is presented in Figure 2. The site is zoned for commercial usage.

The first floor of the building will be utilized for the purpose of automobile repair. The proposed partial second floor will be utilized as office space. There will be no basement. Given the slab on grade construction of the building, the only soils to be disturbed during construction activities will involve the installation of the building's foundation. Given that the building will occupy almost the entire property, the four footings will require the excavation of an approximate four foot deep by three foot wide trench around the perimeter of the site. As such, it is EnviroTrac's estimate that 40 to 50 cubic yards of material will be excavated to install the foundation. Groundwater at the site is approximately 20 feet below grade. The excavation required to erect the proposed building will not reach or disturb the groundwater beneath the site.

1.3 Description of Surrounding Property

Livonia Avenue is located to the north of the site. An elevated subway line runs along Livonia Avenue. An MTA electrical substation associated with the subway is located on the north side of Livonia Avenue. Other assorted commercial properties also occupy the north side of Livonia Avenue. A commercial building, occupied by a Laundromat and a gasoline station, is adjacent to the eastern boundary of the site. A private residence is located to the south of the site and vacant property is located to the west. Beyond the private residence and vacant property are apartment buildings.

The neighborhood surrounding the site appears to be mixed use. Residential apartments and houses occupy the side streets. Commercial buildings, such as warehouses, stores and automobile repair shops, are located along Livonia Avenue. An inspection of the site and a review of the OER website (SPEED application) indicated only one sensitive receptor within 500 feet of the site. This is the Schenck Plaground, located approximately 400 feet west of the site. The Schenck Playground is located on the south side of Livonia Avenue between Barbey Street and Schenck Avenue.

Figure 3 shows the surrounding land usage.

2.0 SITE HISTORY

2.1 Past Uses & Ownership

A review of ownership records indicate that Mr. Caiozzo has owned the site since 2010. In addition to Mr. Caiozzo, previous owners in the last 10 years include Spider Building Maintenance Inc. and the Urban Group Ltd. Other historical owners include several private individuals and the City of New York. Previous usage of the property includes a private residence, automobile repair and storage and, most recently, as a storage yard. The site is currently vacant, undeveloped land.

2.2 Findings of Previous Environmental Investigation

To EnviroTrac's knowledge, the only environmental report, investigation or similar type document associated with the site is a Phase I ESA titled "Phase I Environmental Audit at Vacant Lot, 876 Livonia Avenue", dated May 22, 2011 and prepared by D.V.D. Environmental, Inc. (Cliffside Park, NJ).

EnviroTrac was informed that the OER was already provided with a copy of the above referenced ESA. The Phase I ESA did not name any specific recognized environmental conditions (RECs). However, EnviroTrac's review of the Phase I ESA would indicate the following REC:

1. The Site is listed on OER's "Little e" database for noise pollution and hazardous materials.
2. The site's former usage as automobile storage and repair.
3. Historic fill below grade surface.

No USTs or Spills are associated with the Site. Adjacent properties of environmental concern include the MTA substation, laundromat, gasoline service station and the vacant lot to the west of the building, which historically contained a varnish factory or warehouse.

2.3 Site Inspection

The site was inspected by EnviroTrac on February 21, 2012. The site was determined to be a vacant lot 20 feet wide by 40 feet long. While the dumping of household trash was noted at the

site, it was determined that this trash did not pose a threat to the environmental quality of the site. No areas of concern were observed.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Professional (QEP) responsible for the preparation of this Remedial Investigation Report (RIR) is Mr. David Lorthioir of EnviroTrac Ltd.

3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements. All workers at the site were properly trained and certified as per 29 CFR 1910.120.

3.3 Materials Management

All material encountered during the performance of the investigation was managed in accordance with applicable laws and regulations. All materials encountered were visually inspected and screened with a PID. None of the materials encountered exhibited any visual or olfactory evidence of contamination, nor did any samples exhibit detectable concentrations of VOCs during the PID screening. As such, all materials not collected as samples were utilized as backfill for the boreholes.

4.0 REMEDIAL INVESTIGATION ACTIVITIES

Mr. David Lorthioir of EnviroTrac Ltd. performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed 3 soil borings across the entire project Site, and collected 7 soil samples (including 1 duplicate sample) for chemical analysis from the soil borings to evaluate soil quality;

3. Installed 1 groundwater monitoring well throughout the Site and collected 2 groundwater samples (includes 1 duplicate sample) for chemical analysis to evaluate groundwater quality;

4. Installed 3 soil vapor probes and collected 3 samples for chemical analysis.

4.1 Geophysical Survey

Based upon the history and small size of the site, a geophysical survey was not performed.

4.2 Installation of Soil Borings, Vapor Points and Temporary Well

As the Phase I ESA and the Site Inspection did not reveal any specific environmental concerns with the site, the soil borings and temporary wells were spaced evenly throughout the site to investigate general site conditions. The rational for the boring locations was as follows:

- Borings SB-1 and VP-1 investigated soil and soil vapor conditions in the northern portion of the site.

- Borings SB-2 and VP-2 investigated soil and soil vapor conditions in the central portion of the site.

- Borings SB-3 and VP-3 investigated soil and soil vapor conditions in the southern portion of the site.

- Temporary monitoring well MW-1 investigated general groundwater conditions at the site.

A qualified environmental driller, utilizing a limited access direct push Geoprobe, advanced the seven investigative borings on February 28, 2012. A Soil Boring Location Plan is attached as Figure 4. Boring Logs, prepared by a geologist, are provided as Appendix A.

Soil Borings

As per the OER approved Work Plan, all soil borings were sampled continuously to a depth of eight feet below grade. Soil was collected continuously to the boring termination depth with a Geoprobe macrocore sampler in five-foot increments using new, disposable acetate sleeves. Each sample was screened for organic vapors with a photo-ionization detector (PID) and evaluated for visual and olfactory indications of environmental impacts.

The soil encountered in all three soil borings consisted of fill material with varying amounts of sand, brick, wood and other debris. None of the soil samples exhibited any visual or olfactory

evidence of petroleum impact. The PID screening indicated that none of the soil samples exhibited detectable concentrations of VOCs.

As per the OER approved Work Plan, since no native material was encountered nor was any contamination observed, two soil samples from reach soil boring were selected for laboratory analysis. In all three of the soil borings these samples consisted of the shallowest interval (0-2 feet) and the deepest interval (6-8 feet) below grade. The soil samples were placed in the proper containers and stored under the proper refrigerated conditions. After the samples were collected the boreholes were backfilled with drill cuttings and capped with bentonite.

It should be noted that not enough soil was collected to generate a duplicate soil sample, as required by the Work Plan. As such, a second soil boring was installed within one foot of boring B-1. This boring was installed to a depth of two feet below grade and the soil sample collected from this boring was identified as B-1 (0-2) Duplicate.

Groundwater Monitoring Well

As the depth to water at the site was unknown, a solid steel 3/4 inch diameter point was initially driven approximately 25 feet below grade. When the point was retrieved, it was observed that groundwater was approximately 19 feet below grade. A second point, with a 2.5 inch diameter was driven to the same depth. Temporary monitoring well MW-1 was then constructed by inserting new, one-inch diameter PVC well screen and riser into the open borehole. The well screen was ten feet long and was placed approximately five feet in and five feet out of the groundwater table. The annulus around the well screen was then filled with clean, number two silica sand.

The groundwater sample was collected from MW-1 with a peristaltic pump and dedicated Teflon tubing using low flow sampling techniques. The sampling was conducted in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, and Sampling Guidelines and Protocols, dated March 1991. The groundwater did not exhibit any visual evidence of impact, such as a sheen, nor did it exhibit any detectable olfactory evidence of contamination. As such, all water purged from the well placed back onto the site. The samples were placed in the proper containers and stored under the proper refrigerated conditions. After the sample collection was completed, the PVC casing was removed from the ground and the borehole was backfilled with clean sand and capped with bentonite. No soil cuttings were generated during the installation of MW-1.

Soil Vapor

The three vapor sampling points were constructed by installing a disposable soil vapor collection point, manufactured by Geoprobe, to a depth of five feet below grade. The geoprobe

rods were withdrawn, leaving the point in the ground, and the annulus around and just above the point was be filled with clean, number two silica sand. A bentonite grout was then utilized to fill and seal the boring. As per the Work Plan, a tracer gas (Helium) was utilized to verify the integrity of the soil vapor point seal. An analysis of soil vapor samples from each point indicated that Helium was not present in the soil vapor and that all of the soil vapor probe seals were tight.

All samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). The vapor samples were collected in Summa canisters which had been certified clean and a sample log was maintained for each of the canisters. Samples were collected for a duration of 2-hours and a flow rate that did not exceed 0.2 L/min. At the conclusion of the soil vapor sampling all canisters were handled following proper COC procedures. The tracer monitoring was then checked a second time to confirm the integrity of the probe seals. All probe seals were found to be tight.

Field QA/QC Procedures

The following field QA/QC procedures were followed, including:

- All field equipment was calibrated on the day of the field investigation;
- Dedicated and/or disposable field sampling equipment, including acetate sleeves, latex gloves, and or sample tubing was utilized;
- The proper techniques for sample handling, preservation (appropriate sample preservation techniques, including cold temperature storage at 4º C) and transportation (chain of custody documentation) were followed;
- One duplicate sample (soil sample) was collected to evaluate field sampling precision or reproducibility of measurements of the same parameter under the given set of conditions;
- Sufficient sample volumes were collected to adhere to the specific analytical protocol, and provide sufficient sample for reanalysis if necessary;
- All samples were collected in glass containers, with the exception of the nitrate-preserved groundwater sample for metals analysis;
- All samples were analyzed prior to the expiration of the respective holding time for each analytical parameter to ensure the integrity of the analytical results.

Investigation Derived Waste

All of the soil and groundwater encountered did not exhibit any visual or olfactory evidence of contamination. The PID screening indicated that none of the soil samples exhibited detectable

concentrations of VOCs. As such, all soil was used as backfill and any purge water was placed back onto the site.

4.3 Sample Analysis

All soil and groundwater samples were submitted to Phoenix Environmental Laboratories, Inc. (Manchester, CT), a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory, and analyzed for the following Target Compound List (TCL):

- Volatile Organic Compounds by EPA Method 8260C (rev. 2006);
- Semi-volatile organic compounds by 8270D (rev. 2007);
- Pesticides/PCBs by EPA Method 8081B/8082A (rev. 2000); and
- Target Analyte List metals by EPA Method 6010C (rev. 2007).

All vapor samples were also submitted to Phoenix Environmental Laboratories and analyzed for Volatile Organic Compounds by EPA Method TO 15.

As described in the Work Plan, the proper QA/QC procedures were followed at the laboratory. The samples were be received by laboratory personnel, who inspected the sample cooler and canisters to check the integrity of the custody seals. The cooler was then opened, the samples unpackaged, and the information on the chain-of-custody form examined. The shipped samples matched those described on the chain-of-custody form and no problems were noted. Chemical analytical quality assurance is directed by Ms. Kathy Cressia, of Phoenix Environmnetal Laboratories, Inc.

Soil Sample Analysis

A total of seven soil samples were obtained during the subsurface investigation. All samples were analyzed for the previously discussed parameters. Copies of the laboratory analysis are provided as Appendix B. The results of the laboratory analysis are presented as Tables 1 through 5.

Groundwater Sample Analysis

One groundwater sample (MW-1) was obtained during the subsurface investigation. The sample was analyzed for the previously discussed parameters. Copies of the laboratory analysis are provided as Appendix C. The results of the groundwater laboratory analysis are presented as Tables 6 through 10.

Soil Vapor Analysis

Three soil vapor samples were obtained during the investigation and were analyzed for VOCs. Copies of the laboratory analysis are provided as Appendix D. The results of the laboratory analysis are presented as Table 11.

5.0 ENVIRONMENTAL EVALUATION

5.1 Geological and Hydrogeological Conditions.

Given that there were no known concerns and that the development of the site would require excavation no deeper than five feet below grade, only shallow subsurface exploration was performed. Native soils were not encountered and it was determined that the subsurface soils consist of fill material to a depth of at least eight feet below grade. As such, details of the geologic units beneath the site are unknown.

As only one temporary monitoring well was installed at the site, a ground water flow direction or gradient was not determined. The depth to groundwater beneath the site was determined to be approximately 19 feet below grade.

5.2 Soil Chemistry

The laboratory analysis of the soil samples indicated that none of the samples exhibited concentrations of VOCs, SVOCs, Metals, PCBs or Pesticides in concentrations that exceeded their respective RCUSCO's.

Soil/fill samples collected during the RI showed no PCBs at detectable concentrations. One of the soil samples exhibited detectable concentrations of VOCs, but all of the concentrations were below 40 ppb and were well below Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs). The other two soil samples showed no detectable VOCs. Up to 10 SVOC were identified in shallow samples, but none of these concentrations exceeded Track 1 Unrestricted Use SCOs. SVOC were primarily PAH compounds that are commonly associated with historic fill. No samples exhibited concentrations of metals above Track 1 SCOs with the exception of two samples that detected Zinc slightly above Track 1 SCOs but well below Track 2 Restricted Commercial SCOs. The two samples from B-3 exhibited concentrations of Zinc, ranging from 161 mg/Kg in the 0-2' sampling interval to 137 mg/Kg in the 6-8' sampling interval that exceeded Zinc's UUSCO of 109mg/Kg. Two pesticides were detected above Track 1 SCOs but well below Track 2 Restricted Commercial SCOs. The sample from B-1 (6-8') exhibited Dieldrin at a concentration of 0.041 mg/Kg and 4,4-DDD at 0.12 mg/Kg, which exceeds their UUSCOs of

0.005 and 0.0033, respectively.

Since no AOCs were originally identified, there is no relationship between the observed soil contaminants and possible AOCs or contaminant sources. As there were no contaminants in excess of their respective RCUSCOs and only a few contaminants present above their UUSCOs, there were few discernable trends or patterns.

Given that the proposed building is to be constructed slab on grade, soil deeper than five feet below grade will not be disturbed. Thus, the shallow (0-2) samples from all borings is representative of the material that will be removed from the site. All of the shallow samples exhibited low concentrations of VOCs, SVOCs, metals and pesticides. However, none of the shallow samples exhibited any targeted compound or metal in concentrations that exceeded their respective RCUSCOs. None of the shallow samples (from 0-2') exhibited VOCs, SVOCs, Pesticides or PCBs above their respective UUSCOs. The only UUSCO exceedance was in the shallow sample (0-2') from B-3, which exhibited Zinc at a concentration of 161 mg/Kg.

It is EnviroTrac's opinion that the data collected during the performance of the investigation is sufficient to delineate the vertical and horizontal distribution of contaminants in the fill material at the site. None of the contaminants detected exceeded their respective RCUSCOs, as found in 6NYCRR Part 375-6.8.

5.3 Groundwater Chemistry

The groundwater sample collected during the RI showed no detectable concentrations of PCBs, SVOCs or Pesticides. No VOCs were identified above Part 703.5 Class GA Groundwater Quality Standards (GQS) or Guidance Values. The only detected VOC was Tetrachloroethene at 1.8 ug/L, which is below its respective GQS of 5.0 ug/L. Three metals, Manganese (2,760 ug/L), Selenium (23 ug/L) and Sodium (95,900 ug/L) were the only metals identified above their respective GQS.

Given the relatively small square footage of the site, it is EnviroTrac's opinion that the data collected during the performance of the investigation is sufficient to delineate the distribution of contaminants in the groundwater beneath the site.

5.4 Soil Vapor Chemistry

Soil vapor samples collected during the RI showed petroleum and chlorinated VOCs at generally low concentrations. Low detections of compounds usually associated with gasoline, such as Ethanol, Benzene, Toluene, Ethylbenzene and Xylenes, were also detected. In two samples, Tetrachloroethene (PCE) was identified at concentrations of 102 ug/m^3 and 117 ug/m^3.

The results for PCE are within the monitoring level ranges for the NYSDOH soil vapor guidance matrix. All three soil vapor samples exhibited concentrations of Acetone (ranging from 75 ug/m^3 to 230 ug/m^3) and Methyl Ethyl Ketone (ranging from 110 ug/m^3 to 167 ug/m^3). Since these compounds were not detected in the soil samples and generally not found in groundwater (with the exception of a low level of PCE detected at 1.8 ug/L) an offsite source is suspected.

It is EnviroTrac's opinion that the data collected during the performance of the investigation is sufficient to delineate the distribution of contaminants in the soil vapor beneath the site.

5.5 Prior Activity

It is EnviroTrac's conclusion that, based upon the evaluation of the data and the information obtained during the performance of the Remedial Investigation, the disposal of hazardous waste has not taken place at the site.

5.6 Impediments to Remedial Action

There are no known impediments to remedial action at the site.

AERIAL PHOTOGRAPH

Figure 1
Site Location Plan

876 Livonia Avenue
Brooklyn, NY

N
W E
S

EnviroTrac
Environmental Services
5 Old Dock Road
Yaphank, NY 11980
P: 631-924-3001 F:631-924-5001

Figure 2

Site Development Information

COMMERCIAL BUILDING

876 LIVONIA AVENUE, BROOKLYN, NY

JOB DESCRIPTION

APPLICATION IS FILED FOR THE CONSTRUCTION OF NEW 3-STORY BLOCK & FRAME BUILDING CONTAINING USE GROUP TO AT FIRST FLOOR & USE GROUP TE AT SECOND FLOOR. NEW CERTIFICATE OF OCCUPANCY REQUIRED. ALL WORK AS PER PLANS SUBMITTED HEREWITH.

PROPERTY DATA

BLOCK	4092
LOT	3
HOUSE #	876
MAP	710
ZONE	R6A W/ C2-3 OVERLAY
USE GROUP	1
OCCUPANCY GROUP	R1
CONSTRUCTION CLASS	3-A
BUILDING HEIGHT	36'-8"
FIRE DISTRICT	YES
FRESHWATER WETLANDS	NO
SPECIAL DISTRICTS	NO

ZONING RESOLUTION ANALYSIS

TOTAL LOT AREA: 80.00' x 40.00' = 3200 SF. (see Site Plan)

FLOOR AREA CALCULATIONS (COMMERCIAL)

ZR 33-01 MAX. PERMITTED COMMERCIAL FLOOR AREA RATIO = 2.0
TOTAL PERMITTED FLOOR AREA = LOT AREA x MAX. FAR
= 3200.0 SF. x 2.0
= 6400.0 SF.

FLOOR LEVEL (COMMERCIAL)	TOTAL
FIRST FLOOR AREA	3200.0 SF
MEZZANINE FLOOR AREA	426.6 SF
SECOND FLOOR AREA	4773.0 SF
TOTAL FLOOR AREA	5243.3 SF

TOTAL BUILDING FLOOR AREA MAX. PERMITTED = 6400.0 SF.
TOTAL BUILDING FLOOR AREA PROPOSED = 5243.3 SF, THEREFORE OK

COMMERCIAL FLOOR AREA MAX. PERMITTED = 6400.00 SF.
COMMERCIAL FLOOR AREA PROPOSED = 5243.3 SF, THEREFORE OK

YARD REGULATIONS

BASIC YARD	ZR SECTION	REQUIRED	PROPOSED
FRONT YARD	N.A.	N.A.	0'-0"
SIDE YARD	33-25	0'-0"	0'-0"
REAR YARD	33-27	20'-0"	+/- 0'-0" (No Rear Yard Required)

** ZR 33-23 (B) In all commercial districts. Any building or portion of a building used for any permitted use other than residences, except that all or portion of a building containing rooms used for living or sleeping purposes (other than a room in a hospital used for the care or treatment of patients) shall not be a permitted construction and provided that the height of such building shall not exceed one story, excluding "basement", nor in any event 23 feet above curb level **

BUILDING HEIGHT & SETBACKS:		MAXIMUM	PROPOSED
ZR 33-431	MAX. STREET WALL HEIGHT	60'-0" or 4 Stories	36'-8" and 3 Stories
ZR 33-431	MAX. BUILDING HEIGHT	2.3 to 1 slope above 60'-0"	

REQUIRED OFF-STREET PARKING (Use Group 10 - Parking Category B)
ZR 36-21 1 PER 300 SQUARE FT. OF FLOOR AREA
TOTAL COMMERCIAL SQ. FT. IS 5243.3 THEREFORE
5243.3 SF / 300 SQ. FT. = 17.4333 = 4
ZR 36-23 WAIVER OF REQUIREMENTS FOR SPACES BELOW MINIMUM NUMBER
THE MIN. NUMBER OF SPACES REQUIRED FOR C2-3 DISTRICT IS 5
TOTAL PARKING REQUIRED AS PER ZR 36-21 IS 4, THEREFORE NOT REQUIRED

CODE FLOOR AREA CALCULATIONS

FLOOR LEVEL (COMMERCIAL)	TOTAL
FIRST FLOOR AREA	3200.0 SF
PLATFORM (ABOVE BATH) FLOOR AREA	426.6 SF
SECOND FLOOR AREA	4773.7 SF
TOTAL FLOOR AREA	(5243.3 SF)

SPECIAL INSPECTIONS

✓ CONCRETE - CAST - IN - PLACE	BC 1704.4
✓ SOILS - SITE PREPARATION	BC 1704.7
✓ SOILS - INVESTIGATIONS (BORINGS/ TEST PITS/ FIELDS)*	BC 1704.7.4
✓ MASONRY**	BC 1704.5
✓ STRUCTURAL COLD-FORMED STEEL**	BC 1704.3.2
✓ EXCAVATION - SHEETING, SHORING AND BRACING**	BC 1704.1.2, BC 3304.4.1
✓ FIRESTOP, DRAFTSTOP, AND FIREBLOCK SYSTEMS	BC 1704.29
✓ SITE STORM DRAINAGE DISPOSAL & DETENTION SYSTEM	BC 1704.29
✓ CONCRETE TEST CYLINDERS**	BC 1908.6
✓ CONCRETE DESIGN MIX**	BC 1908.3

*INSPECTIONS MUST BE PERFORMED BY P.E. # RETAINED BY THE OWNER AS A THIRD PARTY.

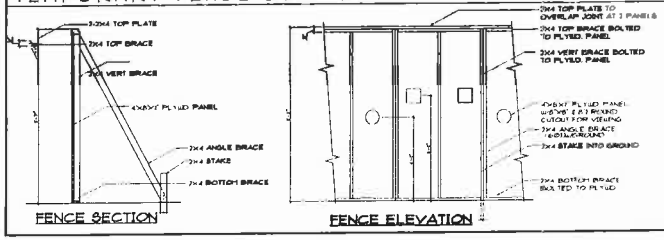
PROGRESS INSPECTIONS

✓ FOOTING AND FOUNDATION	BC 1983.1
✓ FRAME INSPECTION	BC 1983.3
✓ FIRE - RESISTIVE RATED CONSTRUCTION	BC 1983.4
✓ ENERGY CODE COMPLIANCE INSPECTIONS	BC 1983.5

ENERGY CODE PROGRESS INSPECTIONS

✓ PROTECTION OF FOUNDATION INSULATION	(N1A1)
✓ INSULATION PLACEMENT & R-VALUES	(N1A1)
✓ FENESTRATION THERMAL VALUES & RATINGS	(N1A3)
✓ FENESTRATION RATINGS FOR AIR LEAKAGE	(N1A4)
✓ FENESTRATION AREAS	(N1A5)
✓ AIR SEALING & INSULATION - VISUAL	(N1A6)
✓ DAMPERS INTEGRAL TO BUILDING ENVELOPE	(N1B2)
✓ HVAC & SERVICE WATER HEATING EQUIPMENT	(N1B3)
✓ HVAC & SERVICE WATER HEATING SYSTEM CONTROLS	(N1B4)
✓ DUCT LEAKAGE TESTING	(N1B6)
✓ ELECTRICAL METERING	(N1C1)
✓ INTERIOR LIGHTING POWER	(N1C3)
✓ LIGHTING CONTROLS	(N1C5)
✓ EXIT SIGNS	(N1C7)

TEMPORARY FENCE DETAILS



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SITE LEGEND

- [ ] LEGAL GRADE
- < > PROPOSED GRADE
- ( ) EXISTING GRADE
- PROPOSED SITE TREE
- PROPOSED INDIVIDUAL TREE
- PROPOSED UTILITY POLE LOCATION

PLAN LEGEND

- ⊘ SD/CM — 75 CFM MIN. EXHAUST FAN
- SD/CM — APPROVED TYPE SMOKE / CARBON MONOXIDE DETECTOR
- FLOOR/CEILING JOISTS
- ROOF RAFTERS
- FLOOR DRAIN
- EXIT SIGN

BASE PLANE CALC. (CODE)

CODE CALCULATIONS (using legal grades at front property line)

[(8.44) + (8.96)] ÷ 2 = 8.70
8.70 + 1.0 = 9.70
CODE BASE PLANE = 9.70

STREET LINE CALC. (ZONING)

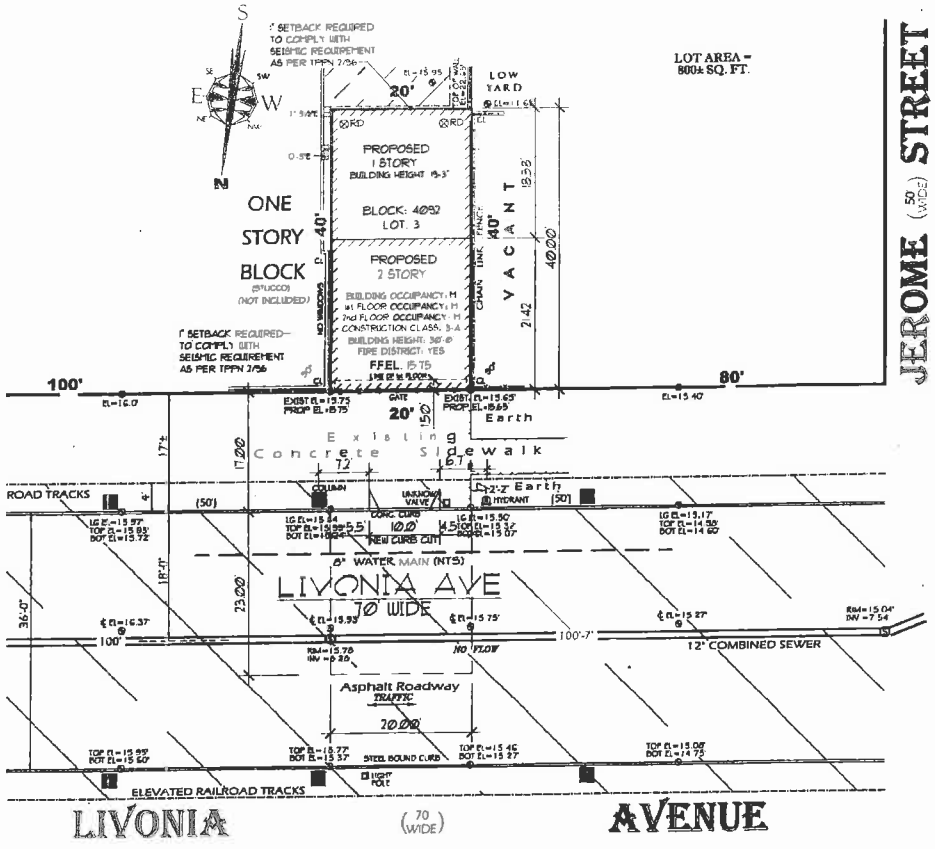
ZONING CALCULATIONS (using average existing grades at front property line)

[(8.45) + (8.73)] ÷ 2 = 8.59
8.59 + 1.0 = 9.59
ZONING BASE PLANE = 9.59

BICYCLE PARKING ANALYSIS

ZR 36-70
SHALL BE PROVIDED AT THE RATE OF 1 SPACE PER 10,000 SF OF FLOOR AREA
(3443 / 10,000) x 0.15 =
0.034 < 0.50, THEREFORE NO BICYCLE PARKING IS REQUIRED

PLOT PLAN



SITE PLAN NOTES

SEE APPROVED SANITARY & STORM DRAINAGE PLAN AS PREPARED BY ENGINEER FOR ALL STORM & SANITARY DISPOSAL INFORMATION NOT SHOWN ON THIS PLAN

SEE APPROVED BUILDING PAVEMENT PLAN AS PREPARED BY ENGINEER FOR ALL SIDEWALK, CURB & STREET IMPROVEMENTS NOT SHOWN ON THIS PLAN

NO CRANE SHALL BE OPERATED ON THIS LOT WITHOUT A "CERTIFICATE OF ON-SITE INSPECTION"

PROPOSED CONSTRUCTION WILL NOT HAVE ANY EFFECT ON EXISTING STRUCTURES OR SURFACE FACILITIES LOCATED ON ADJACENT LOTS.

OWNER/BUILDER OF THE REFERENCED PROPERTY STATE THAT WORK DONE UNDER THIS APPLICATION WILL HAVE NO ADVERSE EFFECT ON ANY SURROUNDING PROPERTIES CONCERNING STORM WATER DRAINAGE FOREVER, HE WILL BE RESPONSIBLE TO MAKE CERTAIN THAT WHILE THE WORK IS BEING DONE THE SURROUNDING PROPERTIES WILL BE PROTECTED FROM STORM WATER DRAINAGE.

FINAL SURVEY TO SHOW GRADES AT ALL POINTS WHERE PROPOSED GRADES ARE SHOWN ON PLAN.

CONSTRUCTION INSPECTOR TO BE NOTIFIED TO VERIFY COMPLETION OF PLATFORM BEFORE FINAL SURVEY IS TAKEN

WATER METERS SHALL BE INSTALLED IN ACCORDANCE WITH ANY N.Y.C. AGENCY HAVING JURISDICTION. LOCAL LAW 93-105

SURVEY NOTES

1) PLOT PLAN "BACKGROUND UTILITIES LAND SURVEY PROVIDED BY LAND SURVEYOR

2) REFER TO LAND SURVEY ATTACHED TO THIS APPLICATION FOR ALL CONDITIONS EXISTING AT TIME OF SURVEY ISSUANCE.

3) PLOT PLAN MAY DEPICT PROPOSED CONDITIONS/MODIFICATIONS REQUIRED UNDER THIS APPLICATION.

4) USE OF LAND SURVEY IS PROVIDED AS A COURTESY BY LAND SURVEYOR WITH PERMISSION GRANTED BY SAID PROFESSIONAL

CAIOZZO BUILDING
COMMERCIAL BUILDING
876 LIVONIA AVENUE
BROOKLYN, N.Y.
SITE PLAN & ZONING CALCULATIONS
think DESIGN ARCHITECTURE
1054
09/15/10
A-101.00
1 OF 11

GENERAL NOTES

1) THE CONTRACTOR USING THESE DRAWINGS SHALL PERFORM ALL WORK IN ACCORDANCE WITH NEW YORK STATE AND NEW YORK CITY BUILDING CODES HAVING JURISDICTION.
2) THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL CONDITIONS AT THE SITE PRIOR TO THE START OF WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT OF RECORD PRIOR TO EXCAVATION.
3) THE CONTRACTOR PERFORMING THE WORK SHALL OBTAIN ALL BUILDING DEPARTMENT APPROVALS AND REQUIRED PERMITS BEFORE COMMENCEMENT OF WORK. AT THE COMPLETION OF WORK HE SHALL HAVE ALL THE WORK INSPECTED BY THE BUILDING DEPARTMENT AND SHALL FILE AND OBTAIN A CERTIFICATE OF OCCUPANCY.
4) A PERMIT CARD, BEARING THE PERMIT NUMBER, APPLICATION NUMBER AND LOCATION OF THE PREMISES FOR WHICH THE PERMIT IS ISSUED SHALL BE POSTED OR DISPLAYED AT THE JOB SITE, AS PER SECTION C26-118.4 OF THE NEW YORK CITY BUILDING CODE.
5) TWENTY FOUR HOUR NOTICE OF COMMENCEMENT OF WORK SHALL BE GIVEN TO THE COMMISSIONER OF BUILDINGS AS PER SECTION C26-118.5 OF THE NEW YORK CITY BUILDING CODE.
6) FIVE DAY NOTICE SHALL BE SENT TO ADJOINING PROPERTY OWNERS BEFORE EXCAVATION BY CONTRACTOR AS PER NEW YORK CITY BUILDING CODE SECTION C26-112.3
7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTIONS, AND MIS-ALIGNMENTS ACCORDING TO APPLICABLE CODES, STANDARDS AND GOOD PRACTICE.
8) SIDES OF ALL EXCAVATIONS FIVE FEET DEEP OR GREATER MEASURED FROM THE ADJACENT GROUND SURFACE, SHALL BE MAINTAINED BY SHORING, BRACING OR OTHER RETAINING STRUCTURES. ALTERNATIVELY, EXCAVATED SLOPES MAY BE INCLINED NOT STEEPER THAN 30 DEGREES, AS PER SECTION C26-1903.2(A) OF THE NEW YORK CITY CODE.
9) EXCAVATIONS ARE TO BE PROTECTED AS PER SECTION C26-1903.2
10) SOIL MATERIAL DIRECTLY UNDERLYING FOOTINGS, FOUNDATION PIERS AND FOUNDATION WALLS SHALL BE INSPECTED BY A REGISTERED ARCHITECT OR LICENSED PROFESSIONAL ENGINEER BEFORE CONSTRUCTION OF FOOTINGS.
11) ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF TWO TONS PER SQUARE FOOT, WHICH IS SUBJECT TO INSPECTION BY A REGISTERED ARCHITECT OR A LICENSED PROFESSIONAL ENGINEER BEFORE CONSTRUCTION OF FOOTINGS.
12) ALL FOOTINGS SHALL BE 4'-0" BELOW FINISHED GRADE, MINIMUM AND ALL FOOTINGS ADJACENT TO EXISTING BUILDINGS SHALL MATCH THE ELEVATION OF THE ADJACENT EXISTING FOOTING UNLESS UNDERPINNING HAS BEEN CALLED FOR BY DRAWINGS AND SPECIFICATIONS.
13) PLAIN CONCRETE NOTES: A:CONCRETE MATERIALS, DESIGN AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF REFERENCE STANDARD RS 10-13, SECTION C26-1004.1 OF THE N.Y.C.B.C.
B:CONCRETE SHALL BE PROVIDED TO COMPLY WITH METHOD #3 C26-1004.3(C) OF THE N.Y.C.B.C. -CALCULATED STRESS IN CONCRETE DESIGNED FOR 70% OF BASIC ALLOWABLE STRESS. -LESS THAN 50 YARDS POURED. -CONCRETE CERTIFICATION TO BE SUPPLIED BY THE PRODUCER AS TO STRENGTH, GRAINITY, WATER AND MATERIAL OF CONCRETE DELIVERED. -PROVIDE SIX BAGS OF CEMENT PER CUBIC YARD OF CONCRETE. -PROVIDE 6-1/4 GALLONS OF WATER PER BAG OF CEMENT. -ALL CONCRETE TO BE AIR ENTRAINED. -CONCRETE TO BE 4000 PSI AT 28 DAYS UNLESS OTHERWISE INDICATED. -SLUMP TO BE 4 TO 6 INCHES. C-THREE CYLINDERS SHALL BE TESTED FOR EVERY 50 CUBIC YARDS OR FRACTION THEREOF POURED IN ANY GIVEN DAY.
14) ALL FOOTINGS TO BE CARRIED AT LEAST 4'-0" BELOW ADJACENT GROUND LEVEL, BELOW HOUSE DRAINS AND DOWN TO VIRGIN SOIL.
15) ALL FOUNDATION WALLS SHALL BE ADEQUATELY BRACED AS REQUIRED UNTIL SUPPORTING FLOORS ARE POURED.
16) ALL STRUCTURAL STEEL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST A.S.T.M SPECIFICATION FOR A-36 STEEL, AND TO MEET THE REQUIREMENTS OF SECTION C26-1005 AND RS10-5 AFFIDAVIT OF FABRICATOR TO BE FILED FOR STEEL DESIGNED FOR STRESS OF 18000PSI.
17) LINTELS SUPPORTING MASONRY WALLS OVER 4'-0" SHALL BE PROTECTED WITH MATERIALS HAVING THE REQUIRED FIRE RESISTANCE RATING OF THE WALL SUPPORTED, AS PER SECTION C26-072.4 OF N.Y.C. BUILDING CODES.
18) ALL EXPOSED STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF PAINT, ZINC OR BITUMINOUS COATING, OR EQUIVALENT METAL PROTECTION BEFORE ERECTION AS PER RS10-5 SECTION(24(D) OF THE N.Y.C.B.C.
19) STRUCTURAL STEEL THAT WILL REMAIN EXPOSED SHALL RECEIVE AN ADDITIONAL COAT OF METAL PROTECTION OF ANOTHER COLOR AFTER ERECTION RS10-5 SECTION (24(D), 20) BRICKS SHALL BE MADE FROM CLAY OR SHALE AS PER A.S.T.M C62-67 GRADE MW FOR EXTERIOR WALLS.
21) MORTAR SHALL COMPLY WITH A.S.T.M. 270-1964 TYPE M, PROPORTIONED WITH ONE PART OF PORTLAND CEMENT, ONE PART TYPE II MASONRY, AND SIX PARTS AGGREGATE.
22) MASONRY UNITS SHALL BE CLEARLY IDENTIFIED TO SHOW THE GRADE OF THE UNIT AND THE COMPRESSIVE STRENGTH AS REQUIRED ON PLANS, AS PER SECTION C26-1003.2(A) AND RS 10-1-2 OF THE NY C.B.C.
23) WALLS TO BE BONDED INTEGRALLY WITH DUR-O-WALL REINFORCEMENT BSA# 261-54SM. OR APPROVED EQUAL. BRICK VENEER TO BE ANCHORED TO FRAME WITH NOT LESS THAN 22 GAUGE CORROSION RESISTANT CORRUGATED STEEL TIES, MINIMUM 7/8" WIDE AT NO MORE THAN 24" VERTICAL INTERVALS AND 32" HORIZONTAL INTERVALS, BUT IN NO CASE LESS THAN ONE TIE PER 3-1/2SF OF WALL AREA.
24) REINFORCED GYPSUM CONCRETE MATERIALS, DESIGN AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF RS 10-12 SECTION C26-1008.1 OF THE N.Y.C.B.C. -WELDED WIRE FABRIC SHALL BE SECURELY TAGGED SO AS TO IDENTIFY THE TYPE AND GRADE OF STEEL AND SIZE, AS PER SECTION C26-1008.1 -REINFORCING GYPSUM CONCRETE SHALL NO BE USED WHERE EXPOSED DIRECTLY TO THE WEATHER OR WHERE SUBJECT TO FREQUENT OR CONTINUAL WETTING, AS PER SECTION C26-1008.3
25) ALL WOOD MATERIALS, DESIGNS AND CONSTRUCTION SHALL COMPLY WITH SHALL COMPLY WITH NY.C.B.C.
26) ALL LUMBER SHALL BE GRADE MARKED PRIOR TO DELIVERY TO SITE.
27) ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR, HEMLOCK WEST COAST, OR SOUTHERN PINE WITH A MINIMUM ALLOWABLE BENDING STRESS OF FB=1400PSI AND A MODULUS OF ELASTICITY E=1400000 PSI
28) ALL ROOF AND FLOOR JOISTS SHALL BE BRACED WITH 1"X3" WOOD CROSS BRIDGING OR APPROVED TYPE METAL CROSS BRIDGING AT 8'-0" OC. MAXIMUM WITH A MINIMUM OF ONE ROW OF CROSS BRIDGING IF SPAN IS LESS THAN 15'-0".
29) STRUCTURAL PARTS OF WOOD FRAME SHALL BE GREATER THAN 18" ABOVE EXPOSED GROUND SURFACE. ALL POSTS SHALL BE RAISED AT LEAST 3" ABOVE TOP OF SLAB ON GRADE.
30) THE SIZE AND NUMBER OF NAILS SHALL BE IN ACCORDANCE WITH NY.C.B.C. BUILT-UP MEMBERS SHALL BE SECURELY BOLTED OR SPIKED TOGETHER.
31) ALL EXTERIOR WALLS SHALL BE FIRESTOPPED. ALL EXPOSED WOOD SHALL BE TREATED WITH PRESERVATIVE OR BE OF EQUAL DECAY RESISTANT SPECIES.
32) ALL EXTERIOR SHEATHING SHALL BE 3/4" CDX PLYWOOD. ALL INTERIOR SUB-FLOORING SHALL BE A MINIMUM 3/4" THICK PLYWOOD WITH ONE SIDE SMOOTH FINISH, AS PER RS 10-27.
33) ALL ROOFING SHALL BE CLASS A FIBERGLASS SHINGLES FOR SLOPED ROOFS AND 5 PLY BUILT-UP ROOFING WITH 3 COATS OF MOPPED TAR FINISH FOR FLAT ROOFS.
34) PLUMBING: ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH SECTION P102 AND RS 16-1 OF THE N.Y.C.B.C. -ALL UNDERGROUND BUILDING DRAINS SHALL BE UNCOATED EXTRA HEAVY CAST IRON SOIL PIPE AS PER SECTION P1024.B2 -HOUSE SEWERS SHALL BE UNCOATED EXTRA HEAVY CAST IRON SOIL PIPE AND FITTINGS AND HAVE A MINIMUM DIMENSION OF 6" AS PER -ROOF DRAINS SHALL BE CAST IRON OR OTHER CORROSION RESISTANT MATERIAL AS PER SECTION P1024E.
35) ALL HEATING AND AIR CONDITIONING TO COMPLY WITH ARTICLE 12.16 AND THE NYC ELECTRICAL CODE.
36) THE CONTRACTOR SHALL NOT SCALE OFF DRAWINGS, ALL WRITTEN DIMENSION SHALL HAVE PRECEDENCE OVER GRAPHIC DIMENSION.
37) CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSION AND CONDITIONS ON THE JOB. ARCHITECT OR ENGINEER OF RECORD MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSION AND CONDITIONS SHOWN BY THESE DRAWINGS.
38) ALL CONSTRUCTION, DIMENSION, AND DETAILS SHALL CONCUR WITH AND BE DETERMINED FROM THESE DRAWINGS.
39) ALL MATERIALS AND CONSTRUCTION TO BE INCORPORATED INTO THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATION, APPLICABLE AND CONFORM TO THE STANDARDS AND RECOMMENDATIONS OF THE VARIOUS TRADE INSTITUTES WHERE APPLICABLE. ALL MATERIALS INCORPORATED INTO THE WORK SHALL BE NEW.
40) THE ARCHITECT OF RECORD HAS NOT BEEN RETAINED FOR SUPERVISION AND ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF WORK BEING DONE.
41) A SURVEY BY A DULY LICENSED SURVEYOR SHOWING THE LOCATION OF THE BUILDING AND ALL REQUIRED ELEVATIONS SHALL BE FILED WITH THE N.Y.C.D.O.B. AS PER CODE.
43) ALL BUILDING LOT LINES AND GRADES SHALL BE LAID OUT BY A LICENSED SURVEYOR.
44) TOP COURSE OF HOLLOW BLOCKS SHALL BE FILLED IN SOLID WITH CEMENT.
45) MASONRY SHALL BE PROTECTED AGAINST FREEZING AS PER RS-10-1 AND SECTION I OF THE N.Y.C.B.C.

PLUMBING NOTES

1. THE PLUMBING SYSTEMS (SANITARY, WASTE, VENT, WATER DISTRIBUTION & GAS) AND ALL ASSOCIATED EQUIPMENT WILL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE FULL REQUIREMENT OF THE N.Y.C. BUILDING CODE AS CITED IN ARTICLE 4 AND REFERENCE STANDARDS
2. THE SANITARY SYSTEM SHALL BE PROVIDED IN FULL ACCORDANCE WITH THE PROVISIONS OF SECTION P101.0
3. THE MATERIALS USED IN THE PLUMBING SYSTEMS WILL BE PROVIDED IN FULL ACCORDANCE WITH SECTION P102.0.
4. EQUIPMENT HOOK UP AND THE JOINING OF PIPING WILL BE IN FULL COMPLIANCE WITH SECTION P103.0
5. THE INSTALLATION OF FIXTURES WILL BE IN FULL ACCORDANCE WITH SECTION P104.0
6. VERTICAL AND HORIZONTAL PIPING WILL BE HUNG AND SUPPORTED AS THE FULL COMPLIANCE WITH SECTION P107.0
7. TRAPS FOR FIXTURES AND DRAIN LINES WILL BE PROVIDED WITH CLEANOUTS INSTALLED IN FULL COMPLIANCE WITH SECTION P105.0
8. THE SANITARY DRAINAGE SYSTEM WILL BE SIZED AND INSTALLED IN FULL COMPLIANCE WITH SECTIONS P108 & P112.0.
9. THE WATER SUPPLY SYSTEMS OF THE SUBJECT BUILDING SHALL BE INSTALLED AND MAINTAINED IN FULL COMPLIANCE WITH SECTION P107.0
10. VENT PIPING FOR THE SANITARY DRAINAGE SYSTEM OF THE BUILDING WILL BE INSTALLED IN FULL COMPLIANCE WITH SECTION P115.0
11. THE STORM DRAINAGE SYSTEM AND PIPING WILL BE INSTALLED IN FULL COMPLIANCE WITH SECTION P110.0.
12. GAS PIPING AND EQUIPMENT SHALL BE INSTALLED IN FULL COMPLIANCE WITH SECTION P15.0 AND IN ACCORDANCE WITH US.A.S.I. 22130 M-4 AS OUTLINED IN SECTION P15.C
13. ALL TRENCHING SHALL BE DONE IN ACCORDANCE WITH SECTION P1012
14. RAT PROOFING SHALL BE DONE IN ACCORDANCE WITH SECTION P1014.
15. GAS PIPING AND EQUIPMENT SHALL BE INSTALLED IN FULL COMPLIANCE WITH SECTION
16. PROVIDE RESILIENT ISOLATORS FOR PIPING IN ACCORDANCE WITH PARAGRAPH C26-1066.3(B) OF THE N.Y.C. BUILDING CODE

GAS NOTES

1. ALL GAS PIPING SHALL BE BLACK IRON AS PER USAGE 22/30/1994
2. ALL GAS FIRED EQUIPMENT SHALL COMPLY WITH R.S. 14-2 & 14-6 OF THE NYCBC AND BEAR MEA APPROVED LABEL
3. ALL GAS SUPPLY PIPING SHALL COMPLY WITH ARTICLE 16 & SECTION C26-1600.3 OF CURRENT NCYBC.
4. ALL GAS MAINS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM STAIRS.
5. ALL WORK BY A LICENSED PLUMBER
6. ALL WORK SHALL MEET OR EXCEED MINIMUM CODE REQUIREMENTS OF THE NYC BUILDING CODE.

CONCRETE & FOUNDATION

1) BACKFILLING SHALL NOT TAKE PLACE UNTIL CONCRETE HAS REACHED SUFFICIENT STRENGTH
2) CONTRACTOR SHALL NOT, UNDER ANY CIRCUMSTANCE EXCAVATE BELOW ADJACENT FOOTINGS
3) ALL EXCAVATIONS SHALL BE PROTECTED AS REQUIRED BY NYCBC
4) FOLLOW ACI STANDARDS AS MODIFIED BY THE NYCBC RS10-3 FOR SPECIFICATIONS OF CONCRETE CONST.
5) THE DESIGN AND CONSTRUCTION OF ALL FORMWORK SHALL COMPLY WITH NYCBC
6) CONCRETE SHALL BE FC 4000PSI AIR ENTRAINED STONE CONCRETE AT 28 DAYS.
7) REINFORCING SHALL CONFORM TO THE CURRENT REQUIREMENTS OF ASTM A615-60(FY60000PSI)
8) CONCRETE CERTIFICATE TO BE SUPPLIED BY PRODUCER AS TO STRENGTH QUALITY, WATER CEMENT, AND MATERIAL OF CONCRETE DELIVERED. PROVIDE A PREQUALIFIED MIX COMPLYING WITH SECTION C26-1004.3 METHOD 1
9) ALL FOOTINGS SHALL BEAR ON VIRGIN SOIL, BEARING CAPACITY OF 2 TONS AS PER SF MIN AS PER NYCBC
10) ALL CONCRETE TESTING SHALL COMPLYING WITH NYCBC RS10-3
11) ALL STRUCTURAL MEMBERS SHALL BE POURED TO THEIR FULL DEPTH IN ONE OPERATION.
12) MINIMUM STEEL COVER SHALL BE 3/4" FOR SLABS 1" FOR INTERIOR FACE OF WALLS 2" FOR EXTERIOR FACE OF WALLS, 3" FOR FOOTINGS

STRUCTURAL STEEL NOTES

1) CONTRACTOR SHALL FILE AN AFFIDAVIT FROM THE MANUFACTURER OF STRUCTURAL STEEL CERTIFYING THAT THE STEEL MEETS THE MINIMUM REQUIREMENT FOR STRUCTURAL STEEL AS DEFINED AISC AND NYCBC RS10-5. 2) ALL STRUCTURAL STEEL SHALL BE ASTM 36 (FY=36,000PSI)
3) THE STRUCTURAL STEEL FRAMING AND DETAILING SHALL CONFORM TO AISC SPECIFICATION FOR DESIGN FABRICATION AND ERECTION
4) ALL STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF RUST INHIBITOR PAINT FIELD TOUCH-UP AS REQUIRED
5) ALL WELDING SHALL BE DONE BY LICENSED WELDERS IN ACCORDANCE WITH C26-381.0 OF THE NYCBC
6) ALL SHOP AND FIELD CONNECTIONS SHALL BE WELDED OR BOLTED ALL BOLTS SHALL BE MINIMUM 3/4"DIA ASTM A325 AND MEET AISC SPECIFICATION (6) ALL WELD SHALL CONFORM WITH AISC SECTION 1.17
7) ALL STEEL DETAILS SHALL BE DESIGNED TO MEET THE ARCHITECTURAL REQUIREMENT.
8) ALL END CONNECTIONS SHALL BE FULL STRENGTH CONNECTIONS CAPABLE OF RESISTING THE MAXIMUM UNIFORM LOAD ON THE SPAN
9) EXPOSED STEEL SHALL RECEIVE AN ADDITIONAL COAT OF METAL PROTECTION OF A DIFFERENT COLOR AFTER ERECTION AS PER RS 10-5 (24 D)

SMOKE / CARBON MONOXIDE DET. NOTES

1. PROVIDE HARDWIRED SMOKE / CARBON MONOXIDE DETECTORS THAT SHALL COMPLY IN PROPOSED LOCATIONS AS PER PLAN FILED HEREWITH.

2. REQUIRED SMOKE ALARMS/CARBON MONOXIDE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM A DEDICATED BRANCH CIRCUIT OR THE UNSWITCHED PORTION OF A BRANCH CIRCUIT ALSO USED FOR POWER AND LIGHTING, AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. SMOKE ALARMS SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVERCURRENT PROTECTION. BC 907.2.10.2 / 908.7.1.7

3. A CERTIFICATE OF SATISFACTORY INSTALLATION FOR SMOKE DETECTORS MUST BE FILED WITH THE DIVISION OF CODE ENFORCEMENT HPD 10 DAYS AFTER INSTALLATION

4. SMOKE ALARMS IN GROUPS R-2, R-3 AND I-1: SINGLE OR MULTIPLE-STATION SMOKE ALARMS SHALL BE INSTALLED AND MAINTAINED IN GROUPS R-2, R-3 AND I-1, REGARDLESS OF OCCUPANT LOAD AT ALL OF THE FOLLOWING LOCATIONS WITHIN A DWELLING UNIT. AS PER BC 907.2.10

A. ON THE CEILING OR WALL OUTSIDE OF EACH ROOM USED FOR SLEEPING PURPOSES WITHIN 15 FEET (4572 MM) FROM THE DOOR TO SUCH ROOM

B. IN EACH ROOM USED FOR SLEEPING PURPOSES

C. IN EACH STORY WITHIN A DWELLING UNIT, INCLUDING BELOW-GRADE STORIES AND PENTHOUSES OF ANY AREA BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL

MASONRY NOTES

1. MASONRY WORK SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI-530) INCLUDING PROVISIONS FOR SEISMIC ZONE 2 AND SHALL COMPLY WITH ALL LOCAL LAWS AND ORDINANCES. WHERE THERE ARE CONFLICTING REQUIREMENTS THE MORE STRINGENT REQUIREMENT SHALL APPLY.
2. ALL MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (FM) OF 1500 PSI AT 28 DAYS
3. HOLLOW CONCRETE MASONRY UNITS SHALL BE LIGHTWEIGHT CONFORMING TO ASTM C90, GRADE N TYPE I.

A. MORTAR SHALL BE TYPE S CONFORMING TO ASTM C270 AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS

B. MORTAR FOR MASONRY IN CONTACT WITH EARTH SHALL BE TYPE M AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS

4. GROUT SHALL CONFORM TO ASTM AND SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS
5. REINFORCEMENT SHALL CONFORM TO ASTM A615 GRADE 60 BARS SHALL BE LAPPED 48 DIAMETERS, OR A MINIMUM OF 2'-0". LAPS SHALL BE STAGGERED AT ADJACENT BARS.
6. HORIZONTAL JOINT REINFORCEMENTS SPACED 16"-0 VERTICALLY SHALL BE FACTORY FABRICATED FROM STEEL WIRE CONFORMING TO ASTM A82 OR A456. MINIMUM DIAMETER GAGE FOR LONGITUDINAL AND CROSS WIRES SHALL BE 9 GAGE. MINIMUM DIAMETER FOR LONGITUDINAL WIRES FOR HEAVY DUTY TRUSS TYPE REINFORCEMENT FOR SINGLE WITH THE CONSTRUCTION SHALL BE TRUSS TYPE
7. ALL CELLS CONTAINING REINFORCEMENT, BOLTS OR OTHER METAL ANCHORS SHALL BE FILLED SOLID WITH GROUT.
8. AT THE BOTTOM OF ALL MASONRY WALLS, PROVIDE ONE DOWEL TO THE SUPPORTING SLAB AT EACH CELL CONTAINING REINFORCEMENT.
9. FILL ALL OPEN CELLS IN CONCRETE EXTERIOR BLOCK WITH POURED OR LOOSE FILL INSULATION, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL PROVIDE VERTICAL CONTROL JOINTS AT ALL MASONRY WALLS NOT TO EXCEED A MAXIMUM DISTANCE OF 40'-0" BETWEEN JOINTS OR AS INDICATED ON FLOOR PLAN AND EXTERIOR BUILDING ELEVATIONS
11. MASONRY WALL CONTROL JOINTS AT NON-FIRE RATED WALLS SHALL BE SOLID SECTION OF RUBBER OR RUBBER LIKE MATERIALS. SUCH AS PRODUCTS OF WAMCO CONTROL JOINTS, HORIZONTAL JOINT REINFORCEMENT SHALL TERMINATE EACH SIDE OF CONTROL JOINT.

SEISMIC GENERAL NOTES

-THE DESIGN DETAILS AND NOTICES INCLUDED HEREIN ARE IN COMPLIANCE WITH LOCAL LAW 17/95 EARTHQUAKE CODE AND BC SECTION 1613 THROUGH 1622

1. DESIGN CONSTRUCTION INSPECTION AND TESTING OF MATERIALS OF CONSTR. I.E. CONCRETE, STEEL MASONRY SHALL CONFORM TO THE REQUIREMENTS OF:
   a. NEW YORK CITY BUILDING CODE AMENED TO DATE
   b. ACI SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF BUILDINGS ACI 301-96 INCLUDING ALL THE REVISION THERETO
   c. AISC SPECIFICATIONS FOR DESIGN CONSTRUCTION AND ERECTION OF BUILDINGS WITH ALL THE REVISION THERETO
   d. APPLICABLE SEISMIC LOADS ZONE 2A New York City Local Law 17/1995
2. ALL FOUNDATIONS TO BE CARRIED 1'-0" MINIMUM IN TO FIRM UNDISTURBED GROUND WITH BEARING CAPACITY OF 2.0 TONES/SFT DEPTHS OF THE FOOTINGS SHOWN ON THE PLANS ARE MINIMUM CONTRACTOR SHALL VERIFY AND OBTAIN APPROVAL OF BEARING CAPACITY AT THE BOTTOM OF FOOTINGS FROM SOIL ENGINEER
3. CONCRETE (STONE/LIGHT WEIGHT) SHALL CONFORM TO THE ASTM SPEC C 33 W/ COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS WITH MAXIMUM SLUMP OF 4" REINFORCING BARS SHALL BE ASTM SPEC A 615 GRADE 60. WELDED WIRE FABRIC SHALL BE ASTM SPEC A 185
4. ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM SPEC FOR A36 STEEL ANCHOR BOLTS BOLTS NUTS AND WASHERS SHALL CONFORM TO ASTM A 325. ALL BOLTS SHALL BE 3/4" DIA (MIN) NO OF BOLTS SHALL BE MAXIMUM PERMISSIBLE FOR THE SPECIFIED DEPTH OF THE BEAM ELECTRODES FOR WELDING SHALL BE E 70 SERIES CONFORMING TO ASTM A 233
5. METAL DECK SHALL BE GALVANIZED AND SHALL CONFORM TO THE SPECIFICATION OF STANDARD DECK INSTITUTE
6. OPEN WEB JOISTS SHALL CONFORM TO THE REQUIREMENT OF STEEL JST. AND JST GIRDER SPECIFICATIONS
7. CONTRACTOR SHALL VERIFY LOCATIONS SIZES AND INSTALL ALL THE SLOTS, ANCHORS, PIPES SLEEVES ETC. REQUIRED BY OTHER PROFESSIONALS AND SUB CONTRACTORS BEFORE POURING CONCRETE. CONTRACTOR SHALL SHORE/ STRUT/UNDERPIN EXISTING STRUCTURAL ELEMENTS DURING CONSTRUCTION PHASE AS REQUIRED/AS SHOWN
8. CONTRACTOR SHALL PROVIDE AND PAY FOR ALL THE CONTROLLED INSPECTIONS. THESE SHALL BE DONE BY INDEPENDENT TESTING AGENCY APPROVED BY NY CITY BUILDING DEPARTMENT
9. DESIGN LIVE LOADS: 100 PSF. FIRST FLOOR
   40 PSF. SECOND FLOOR
   30 PSF ROOF

GENERAL CONTRACTOR NOTES

GENERAL CONTRACTOR SHALL PROVIDE ALL TEMPORARY CONSTRUCTION BARRICADES AS REQUIRED.
ALL DEMOLITION WORK SHALL COMPLY WITH OSHA STANDARDS.
GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER SHORING AND BRACING AS REQUIRED TO SAFELY EXECUTE DEMOLITION WORK.
THIS PLAN IS APPROVED FOR WORK INDICATED ON THE APPLICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE USED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODE

OWNER/ G.C. NOTES

OWNER/ G.C. TO POST IN A CONSPICUOUS AREA:
ALL D.O.B./ D.O.T PERMITS
HARD HAT AREA SIGN
NO SMOKING SIGN
NOISE MITIGATION PERMIT (DEP)
ALL OTHER REQUIRED PERMITS

TR-2 & TR-3 NOTE

(PER BUILDING BULLETIN 2009-026)

THE WORK MEETS THE EXEMPTION CRITERIA OF BUILDINGS BULLETIN 2009-26 ITEM IV AND I HEREBY ELECT TO WAIVE THE REQUIREMENT OF CONCRETE TESTING AND OF THE TR2 FORM AND/OR TR3 FORM
-THE TOTAL STRUCTURAL CONCRETE SPECIFIED FOR THE PROJECT IS LESS THAN 50 CUBIC YARDS (38 M3)
-THE STRUCTURAL DESIGN OF THE CONCRETE IS BASED ON A SPECIFIED COMPRESSIVE STRENGTH F'C NO GREATER THAN 2500 POUNDS PER SQUARE INCH (PSI) (17 MPA) REGARDLESS OF THE COMPRESSIVE STRENGTH SPECIFIED IN THE CONSTRUCTION DOCUMENTS OR USED IN THE CONSTRUCTION; AND
-THE CONCRETE TO BE PLACED IS SPECIFIED TO HAVE A COMPRESSIVE STRENGTH OF AT LEAST 4000 PSI (28 MPA)

D.O.B. FLOOR AREA CALCULATIONS

FIRST FLOOR AREA CALCS
TOTAL: 800.0 SF

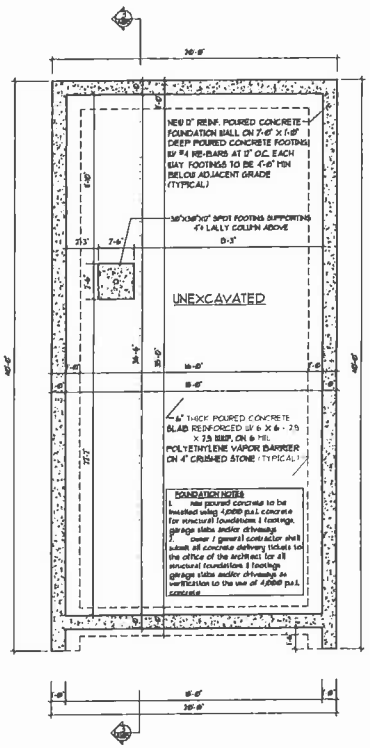
MEZZANINE FLOOR AREA
TOTAL: 41.66 SF

SECOND FLOOR AREA CALCS
TOTAL: 499.77 SF

CAIOZZO BUILDING

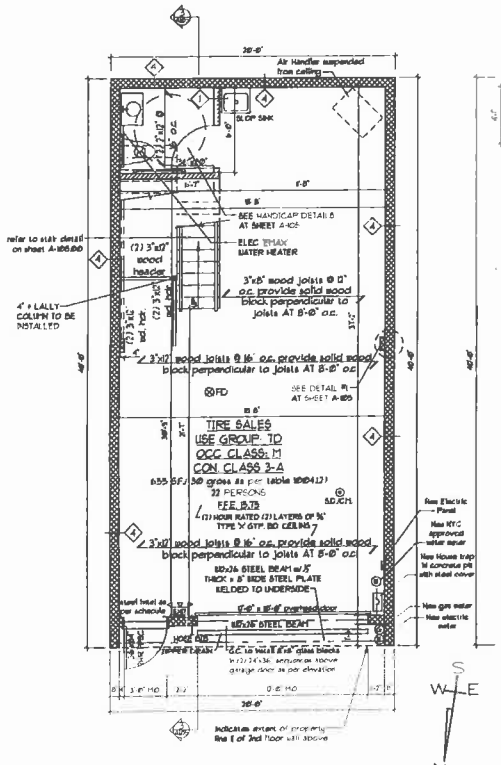
think DESIGN ARCHITECTURE

Project Description	COMMERCIAL BUILDING
Project Location	LIVONIA AVENUE BROOKLYN, N.Y.
Drawing Title	GENERAL NOTES
Job No.	1034
Date	09/16/10
Scale	NTS
Drawn By	FMJ
Drawing Number	A-102.00
Page No.	2 OF 11



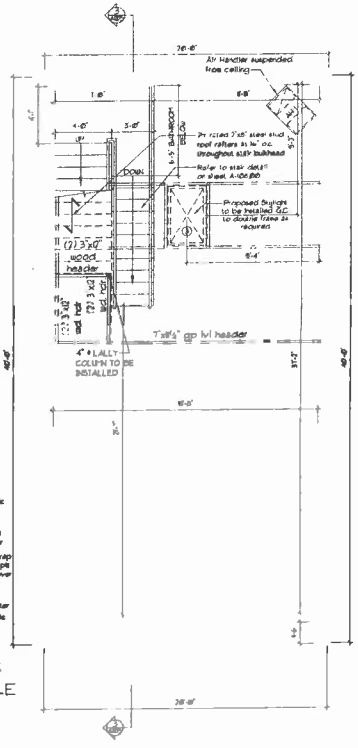
1 PROPOSED FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



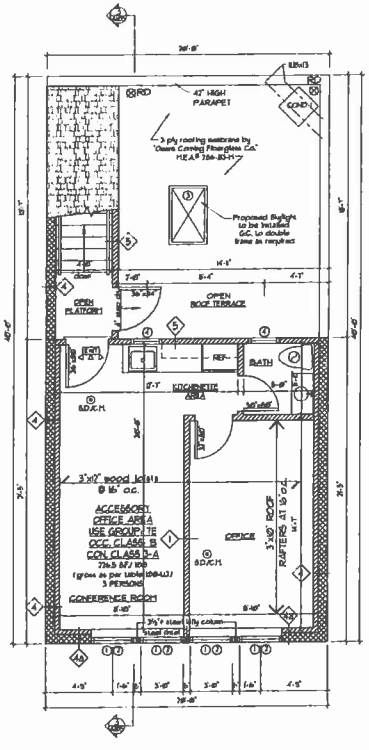
2 PROPOSED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



3 PROPOSED PLATFORM ABOVE BATH

SCALE: 1/4" = 1'-0"



4 PROPOSED SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

CAIOZZO BUILDING

COMMERCIAL BUILDING

LIVONIA AVENUE
BROOKLYN, N.Y.

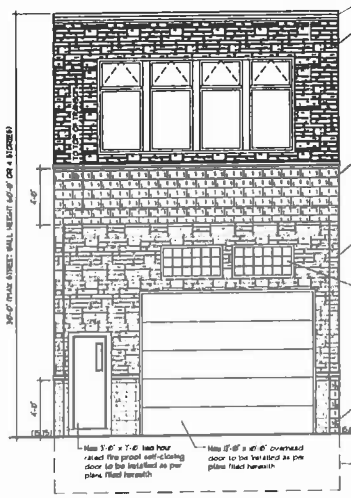
FLOOR PLANS

think DESIGN ARCHITECTURE

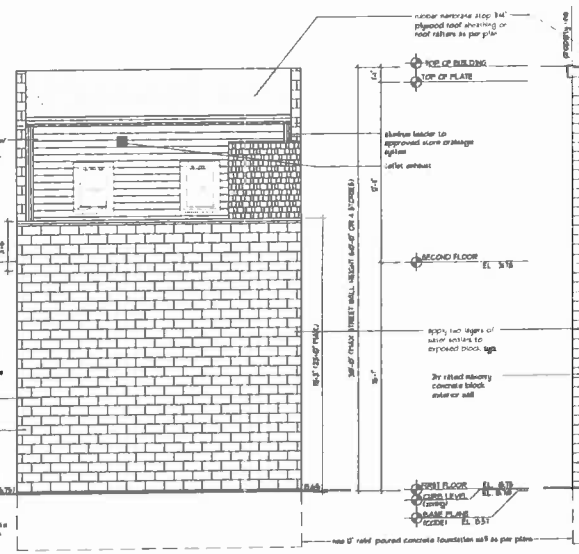
No.	Date	Description

Comments

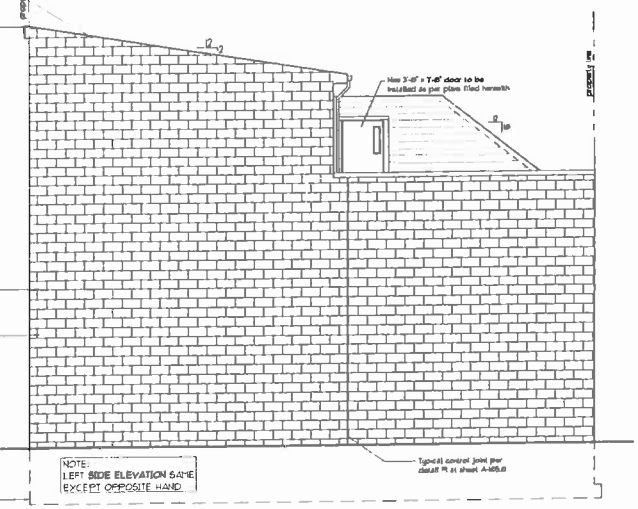
Drawn: MS
Checked: FSH
Date: 09/16/10
Scale: 1/4"=1'-0"
Job No: 1034
Drawing No: A-103.00
Sheet No: 3 OF 11



5 PROPOSED FRONT ELEVATION
SCALE: 1/4" = 1'-0"



6 PROPOSED REAR ELEVATION
SCALE: 1/4" = 1'-0"



7 PROPOSED RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

Rev.	Date	Description

Project Description: COMMERCIAL BUILDING

Project Location: LIVONIA AVENUE BROOKLYN, N.Y.

Drawing Title: ELEVATIONS

Client: CAIOZZO BUILDING

think DESIGN

Job No. 1054 | Drawn by MS | Checked by FMB

Date 09/16/08

Drawing No. A-104.00

Page No. 4 OF 11

think DESIGN ARCHITECTURE

TYP. REINFORCED CONCRETE MASONRY CONSTRUCTION
NOT TO SCALE

TYPICAL MASONRY WALL
scale: NOT TO SCALE

1 PILASTER DETAIL
scale: 1"=1'-0"

2 TYPICAL FIRECUT DETAIL
NOT TO SCALE

3 PROPOSED LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"

4 DETAIL SECTION AT FRONT MASONRY WALL

5 DETAIL SECTION AT 2-HR RATED PROPERTY MASONRY WALL

COMMERCIAL BUILDING

LIVONIA AVENUE
BROOKLYN, N.Y.

SECTIONS & DETAILS

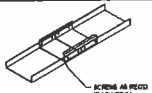
CAIOZZO BUILDING

think DESIGN

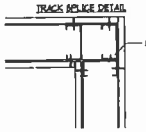
thinkDESIGN ARCHITECTURE

1054	MS
09/16/10	FMJ
A-105.00	5 OF 11

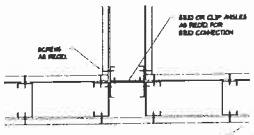
LIGHTGAGE FRAMING DETAILS



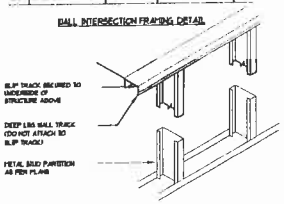
TRACK SPLICE DETAIL



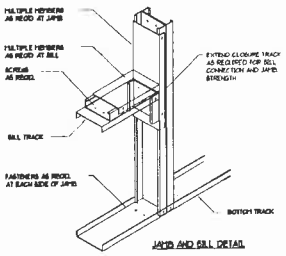
CORNER FRAMING DETAIL



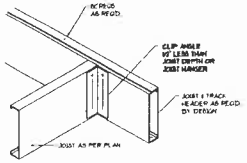
STUD INTERSECTION FRAMING DETAIL



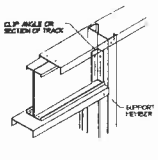
STUD CONNECTION UNDERSIDE OF STRUCTURE

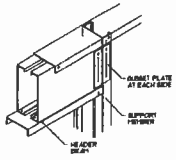


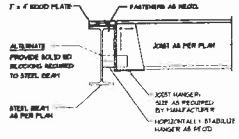
JAMB AND SILL DETAIL



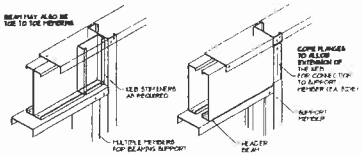
JOIST TO JOIST HEADER
NOT TO SCALE







JOISTS SUPPORTED BY STEEL BEAM
NOT TO SCALE



ALTERNATE HEADER BEAM CONNECTIONS
NOT TO SCALE

LIGHTGAGE FRAMING NOTES

PART I - GENERAL

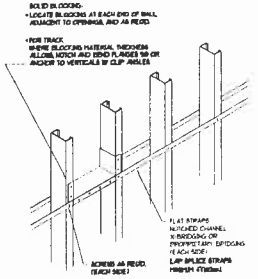
1. ALL DESIGN, DETAILING, FABRICATION AND ERECTION OF LIGHT GAGE FRAMING SHALL BE IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION, AND THE MANUFACTURER'S DETAILS AND SPECIFICATIONS AND THE NYC BUILDING CODE.
2. CALCULATIONS AND DETAILED SHOP DRAWINGS, STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE BUILDING IS TO BE CONSTRUCTED FOR THE LIGHT GAGE METAL FRAMING MUST BE SUBMITTED AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO FABRICATION.

PART II - PRODUCTS

1. REFER TO MARKET INC. FOR THE STUD/TRACK DESIGNATIONS OR APPROVED EQUAL
2. ALL LIGHTGAGE FRAMING SHALL BE GALVANIZED AND SHALL CONFORM TO ASTM A-446 GRADE D WITH A MINIMUM YIELD STRESS OF 33,000 PSI FOR 18 GAGE COMPONENTS AND 50,000 PSI FOR COMPONENTS 16 GAGE AND THICKER.

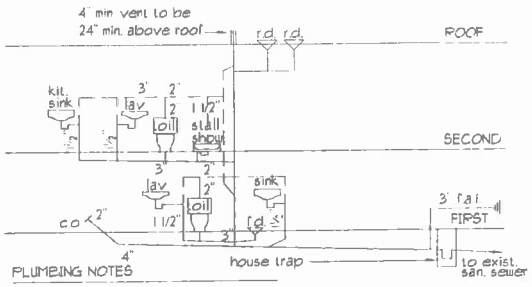
PART III - EXECUTION

1. STEEL STUDS AT EXTERIOR WALLS SHALL BE 16 GAGE (THIRTY-SEVEN GAGE) STUDS SPACED AT 16" O.C. UNLESS NOTED OTHERWISE.
2. STEEL STUDS AT INTERIOR WALLS SHALL BE 20 GAGE (THIRTY GAGE) STUDS SPACED AT 16" O.C. UNLESS NOTED OTHERWISE.
3. HEADERS OVER EXTERIOR WALL OPENINGS SHALL BE A MINIMUM OF 3 STUDS WITH 2 TRACKS (HATCHING WALL STUD SIDE AND GAGE, TOP AND BOTTOM.
4. HEADERS SHALL BEAR ON A DOUBLE JACK STUD WITH A MINIMUM OF TWO ADDITIONAL STUDS CONTINUOUS BY THE HEADER AT EACH SIDE OF THE OPENING.
5. PROVIDE BRIDGING PER MANUFACTURERS REQUIREMENTS (MAXIMUM SPACING OF BRIDGING IS TO BE 8'-0" FOR THE FIRST ROW AND BALANCED AT A MAXIMUM OF 4'-0" O.C. THEREAFTER.
6. ALL LIGHTGAGE FRAMING FOR EXTERIOR FACADES SHALL BE PROVIDED BY AND DESIGNED BY THE LIGHTGAGE CONTRACTOR IN ACCORDANCE WITH THE NYC BUILDING CODE. THE DESIGN SHALL BE SEALED BY A PROFESSIONAL ENGINEER.
7. ALL LIGHTGAGE FRAMING CONNECTIONS TO STRUCTURAL STEEL OR LIGHTGAGE MEMBERS SHALL BE PROVIDED BY AND DESIGNED BY THE LIGHTGAGE CONTRACTOR.
8. WHERE LIGHTGAGE SIZES ARE INDICATED THEY ARE TO BE CONSIDERED MINIMUM JOB SIZE REQUIREMENTS.
9. ALL INSULATED PARTITIONS ARE TO BE SEALED AT FLOOR AND CEILING OR STRUCTURE ABOVE
10. MAXIMUM DEFLECTION ALLOWED SHALL BE L/240
11. ALL DOOR JAMBS SHALL RECEIVE DOUBLE STUDS.
12. ALL FIRE RATED WALLS AND INSULATED WALLS SHALL HAVE PERIMETER CAULKING.
13. PROVIDE FIRESTOPPING WHERE PENETRATION OCCURS AT FLOORS AND WALLS.



WALL BRIDGING DETAIL

TYPICAL PLUMBING RISER DIAGRAM



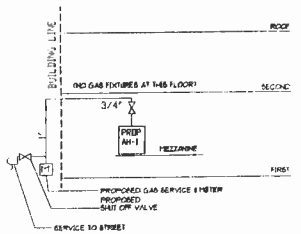
PLUMBING NOTES

- 4" dia. sch.ci house trap in conc pit com'l. w/ steel cover
- 4" dia. sch.ci house drain
- 4" dia sch.ci from house drain to comm. sewer
- 3" dia. f.a.i. min. 6" above finish grade
- hot and cold water risers to be 3/4" dia copper
- hot and cold water branches to be 1/2" dia copper
- water meter to be installed in accordance w/ any n.y.c. agency having jurisdiction

PLUMBING LEGEND

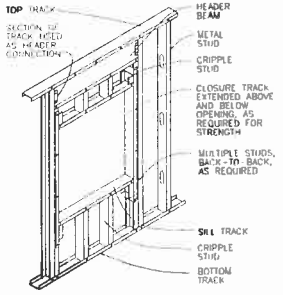
waste line
vent line
hot water
cold water

GAS RISER DIAGRAM

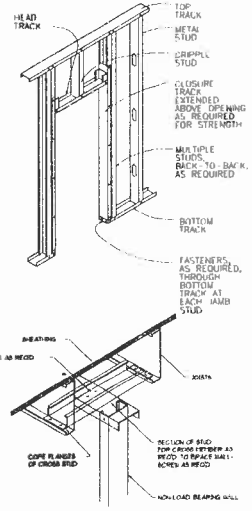


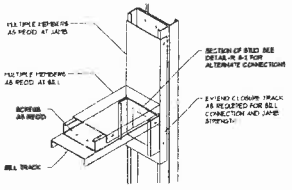
COMMERCIAL UNIT
AIR HANDLER UNIT, TYP.
MAKE: GOODMAN
MODEL: GPP14H4-060BA
TONNAGE: 5
CFM: 2,000
HEAT: 83-03-E

TYP. WINDOW OPENING DETAIL (N.T.S.)



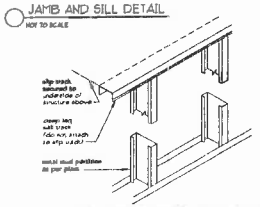
TYP. DOOR OPENING (N.T.S.)





JAMB AND SILL DETAIL
NOT TO SCALE

NON-LOAD BEARING WALL PARALLEL TO JOISTS

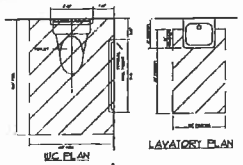


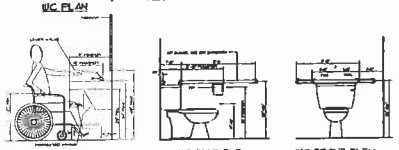
STUD TO UNDERSIDE OF STRUCTURE
NOT TO SCALE

NOTE
1. SUBMIT METAL FRAMING SHOP DRAWINGS FOR ARCHITECTS APPROVAL PRIOR TO FABRICATION OR PURCHASE OF MATERIALS.
2. METAL FRAMING DETAILS AS SHOWN IN PLAN ARE TYPICAL FRAMING CONDITIONS.
3. CONTRACTOR MUST BE RESPONSIBLE FOR COORDINATING WITH THEIR SELECTED METAL FRAMING SUB-CONTRACTOR FOR RECOMMENDED DETAILS AND ANY ADDITIONAL FRAMING REQUIRED (CLIP ANGLES, BRACING, BRACKING, ETC.) REQUIRED TO ENSURE THE PROPOSED WORK IS ACCORDANCE TO MANUFACTURERS SPECIFICATIONS
4. STEEL FRAMING GAUGE SIZES:
   EXTERIOR & INTERIOR BEARING WALLS = 16 GAUGE
   NON-BEARING INTERIOR WALLS = 18 GAUGE
   FLOOR JOISTS = 12 GAUGE
   CEILING JOISTS = 16 GAUGE
   ROOF RAFTERS = 14 GAUGE

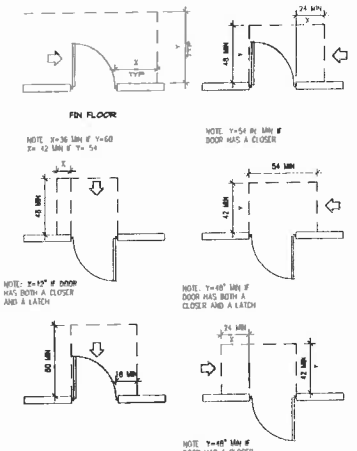
MANEUVERING CLEARANCES AT DOORS

NTS





HANDICAP TOILET DETAIL
SCALE: 1/2"=1'-0"



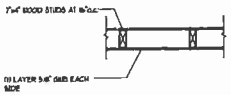
CAIOZZO BUILDING
COMMERCIAL BUILDING
LIVONIA AVENUE
BROOKLYN, N.Y.
RISER DIAGRAMS
HANDICAP DETAILS

think ARCHITECTURE DESIGN

No.	Date	Description

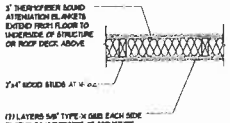
Project No. 1054
Date 09/16/10
Drawing No. A-106.00
Sheet No. 5 OF 12

PARTITION TYPE



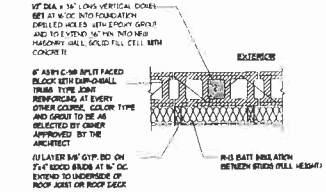
1 NON-RATED INTERIOR GWB PARTITION

4A NON RATED INTERIOR GWB PARTITION
USE WATER RESISTANT GYP. BD. AT TOILET SIDE

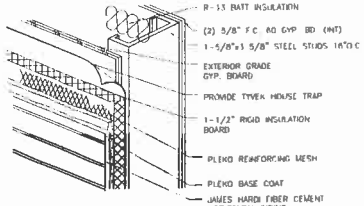


2 2-HR RATED INTERIOR GWB PARTITION
U.L. RATED # U448

2A 2-HR RATED INTERIOR GWB PARTITION
U.L. RATED # U448
USE WATER RESISTANT GYP BD AT TOILET SIDE



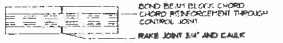
4A FUR-OUT NEW 8" EXTERIOR MAS. BLOCK WALL
(3HR UL. 904)



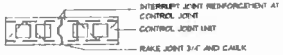
3 2-HR RATED EXTERIOR STL. STUD WALL
(2HR UL. 425)

3A 2-HR RATED EXTERIOR STL. STUD WALL
USE WATER RESISTANT GYP. BD. AT TOILET SIDE (2HR UL 425)

CONTROL JOINT MASONRY BLOCKS DETAILS

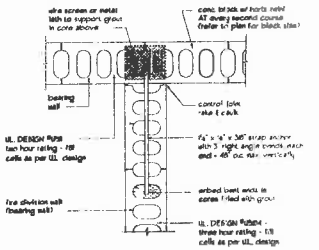


BOND BEAM DETAIL AT CONTROL JOINT

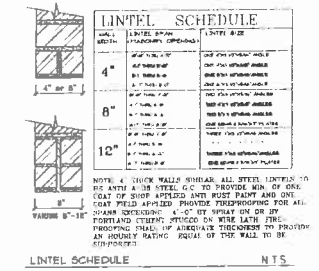


CONTROL JOINT DETAIL

NOTES:
1) CONTROL JOINT SPACING NOT TO EXCEED 24'-0"
2) "DUR-O-WAL" TRUSS TYPE HORIZ. JOINT REINF. SHALL BE PROVIDED EVERY OTHER COURSE AS PER MANUF. SPECS AND DETAILS
3) ALL JOINTS SHALL CONTINUE THROUGH ROOF PARAPETS
4) BOND BEAMS TO BE CONTINUOUS AROUND PERIMETER OF MASONRY WALL AS NOTED IN PLAN

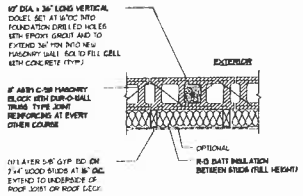


9 INTERSECTING CMU WALL DETAIL



NOTE: 4" THICK WALLS SIMILAR. ALL STEEL LINTELS TO BE ANTI RUST STEEL G.C. TO PROVIDE MIN. OF ONE COAT OF SHOP APPLIED ANTI RUST PAINT AND ONE COAT FIELD APPLIED. PROVIDE FIREPROOFING FOR ALL OPENS EXCEEDING 4'-0" BY SPRAY ON OR BY PORTLAND CEMENT STUCCO ON WIRE LATH. FIRE-PROOFING SHALL BE ADEQUATE THICKNESS TO PROVIDE AN HOURLY RATING EQUAL OF THE WALL TO BE REINFORCED.

LINTEL SCHEDULE N.T.S.



4 FUR-OUT NEW 8" EXTERIOR MAS. BLOCK WALL
(3HR UL. 904)

CAIOZZO BUILDING

COMMERCIAL BUILDING

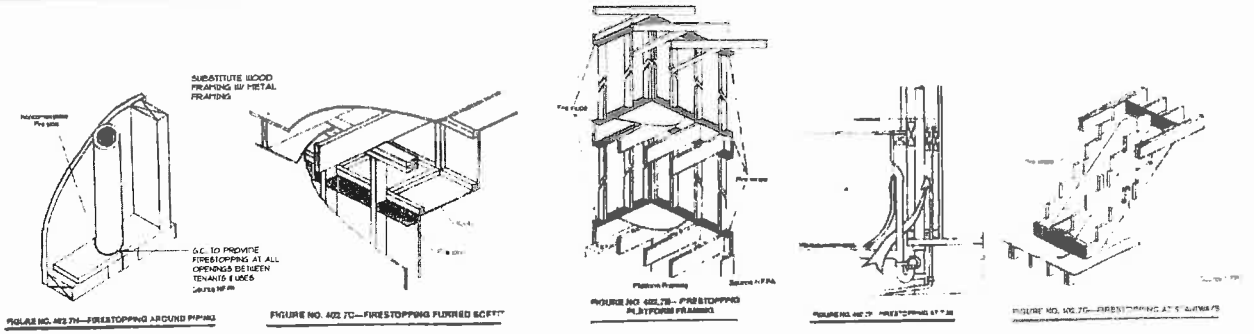
LIVONIA AVENUE
BROOKLYN, N.Y.

WALL DETAILS

think

MK DESIGN ARCHITECTURE

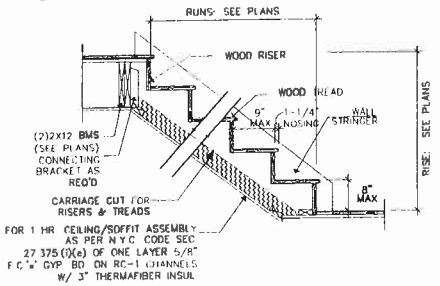
JOB NO.	1054
DATE	09/16/10
DRAWN BY	MS
CHECKED BY	FM
SHEET NO.	A-107.00
	7 OF 11



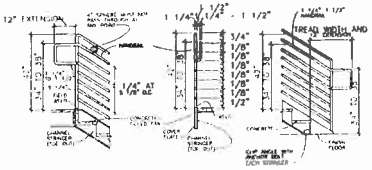
1 TYP FIRESTOPPING DETAILS

SCALE: NTS

2 WOOD STAIR DETAIL



3 STAIR RAILING DETAIL (N.T.S.)

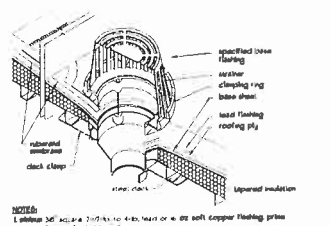


4 WINDOW SCHEDULE

Rough Opening dimensions shown are MINIMUM for proper installation and may need to be increased to allow for use of building wraps, flashing, sill or pan flashings, anchoring brackets or other materials. Adjusting rough opening dimensions to accommodate these materials is the responsibility of the designer or installer. Unit dimensions and rough opening dimensions are based on individual units. Actual dimensions for window to be paired not reflected.

Ref	Description	Unit Dimensions (Each Unit) Width	Unit Dimensions (Each Unit) Height	Rough Opening Dimensions (Each Unit) Width	Rough Opening Dimensions (Each Unit) Height	Notes
Unit Type 1	P3045	2'-8 15/16"	4'-4 15/16"	3'-0 1/2"	4'-5 3/8"	fixed window
Unit Type 2	A31	2'-8 15/16"	3'-0 1/8"	3'-0 1/2"	3'-0 5/8"	awing window
Unit Type 3	R3246	28"	46"	28 1/2"	46 1/2"	skylight
Unit Type 4	T10020	2'-4 5/8"	3'-0 7/8"	2'-2 1/8"	3'-0 7/8"	double hung window

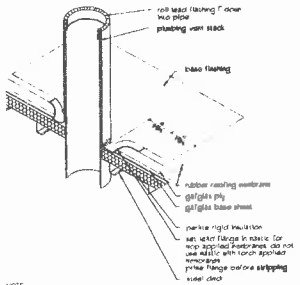
NOTES:
1. TOP OF WINDOWS TO BE 8'-0" AFF UNLESS OTHERWISE NOTED.
2. ALL WINDOWS TO BE ANDERSEN 400 SERIES
3. ALL PAIRED WINDOWS/ DOORS TO BE FACTORY MULLED.
4. ALL WINDOWS AT RESIDENTIAL PORTION OF BUILDING TO BE DOUBLE GLAZED



NOTES:
1. minimum 36" square 2-1/2 lbs to 4-lb, lead or 16 oz soft copper flashing prime top surface before stripping
2. rubberoid prime, lead flashing and flashing plies extend under clamping ring
3. stripping membrane extends 4" beyond edge of flashing sheet, but not beyond edge of sump
4. lead flashing may be set in cement on top applied membranes. Flashing cement must not come in contact with torch applied membranes. For torch applied rubberoid torch to a molten state the area of rubberoid slip over which the metal is to be set while still molten

5 ROOF DRAIN

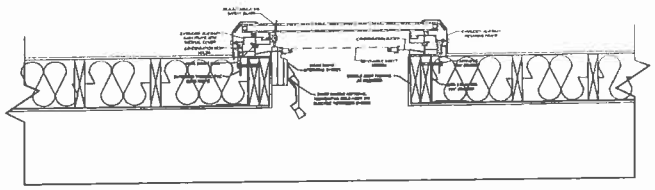
scale: 1" = 1'-0"



NOTE
1. sheet lead minimum of 2-1/2 pounds per square foot
2. for torch applied roof membrane torch to molten state the area of rubber roofing membrane over which the metal is to be in while still molten

6 PLUMBING VENT FLASHING

scale: 1" = 1'-0"



7 SKYLIGHT DETAIL

scale: 1/2" = 1'-0"

Rev	Date	Description

Project Description: COMMERCIAL BUILDING

Project Location: LIVONIA AVENUE BROOKLYN, N.Y.

Drawing Title: MISC. DETAILS

Client: CAIOZZO BUILDING

thinkDESIGN

Job No. 1054 | Drawn By MS | Date 09/16/10 | Checked By FMB | Drawing No. A-108.00 | Sheet No. 8 OF 11

thinkDESIGN ARCHITECTURE

NYS ENERGY CODE COMPLIANCE

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ENERGY CONSERVATION CODE OF NEW YORK STATE

ENERGY CONSERVATION NOTES

GENERAL CRITERIA FOR RESIDENTIAL BUILDINGS THREE STORIES OR LESS IN HEIGHT:
1. FOR THE RESIDENTIAL BUILDINGS THE FOLLOWING AREAS OF GLAZING AS A TOTAL PERCENTAGE OF THE TOTAL WALL AREA SHALL BE USED TO DETERMINE THE MAXIMUM U-RESIDENTIAL 3 STORIES OR LESS, 33 PERCENT.
2. ALL INSULATION SHALL BE INSTALLED IN A MANNER THAT PROVIDES CONTINUITY OF INSULATION AT PLATE LINES, SILL LINES, AND CORNERS
3. ALL INSULATION WHICH IS CAPABLE OF ABSORBING WATER SHALL BE PROTECTED BY A VAPOR BARRIER LOCATED ON THE WINTER WARM SIDE OF THE INSULATION.
4. MANUFACTURED DOORS AND WINDOWS SHALL HAVE AIR INFILTRATION RATES NOT EXCEEDING THE FOLLOWING WINDOWS: CFM PER LINEAR FOOT OF OPERABLE SASH CRACK @ 25 DOORS: CFM PER SQUARE FOOT OF DOOR AREA @
GLAZING GLASS @
SIDINGS TO INFILTRATION WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 1567 LB/FT WHICH IS EQUIVALENT TO THE IMPACT PRESSURE OF A 75 PER MILE HOUR WIND.
5. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENING BETWEEN WALLS AND ROOF/CEILING AND WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOOR AND ROOFS, AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE SHALL BE CAULKED, GASKETS, WEATHER-STRIPPED OR OTHERWISE SEALED. SITE CONSTRUCTION DOOR AND WINDOWS SHALL BE PER ABOVE
6. MAIN ENTRANCE DOORS SHALL BE OF VESTIBULE TYPE.
7. ZONING FOR TEMPERATURE CONTROL:
(A.) BUILDINGS SHALL BE PROVIDED WITH AT LEAST ONE THERMOSTAT FOR REGULATION OF SPACE TEMPERATURE FOR EACH SEPARATE ZONE.
(B.) READILY ACCESSIBLE MANUAL OR AUTOMATIC MEANS TO PARTIALLY RESTRICT OR SHUT OFF THE HEATING TO EACH DWELLING UNIT
(C.) A SWITCH OR A CLOCK SHALL PROVIDE A READILY ACCESSIBLE MANUAL OR AUTOMATIC MEANS FOR REDUCING THE ENERGY REQUIRED FOR HEATING AND COOLING DURING PERIODS OF NON-USE OR REDUCED NEED.
8. PIPING INSULATION: ALL PIPING INSTALLED TO SERVE BUILDINGS AND WITHIN BUILDINGS SHALL BE THERMALLY INSULATED AS PER TABLE 4-5 OF NEW YORK STATE ENERGY CONSERVATION CODE.
9. WATER HEATERS BOILERS:
(A.) EFFICIENCY STANDARDS FOR CLASS ONE WATER HEATERS AS PER TABLE 4-8A OF THE NEW YORK STATE ENERGY CONSERVATION CODE
(B.) EFFICIENCY STANDARDS FOR CLASS TWO WATER HEATERS AS PER TABLE 4-8B OF THE NEW YORK STATE CONSERVATION CONSTRUCTION CODE
(C.) INSULATION, TEMPERATURE CONTROLS, SHUTDOWN, PUMP OPERATIONS, CONSERVATION OF HOT WATER AS PER SECTION E4043 OF THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE.
10. ELECTRICAL DISTRIBUTION, LIGHTING POWER BUDGET, UNIT POWER DENSITY AS PER SECTIONS E405-2, E405-3, TABLE 4-13D ANS 4-13E, OF THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE.
11. THE DWELLING PORTION OF THE BUILDING SHALL BE EXEMPT FROM SECTION E405-3, LIGHTING POWER BUDGET
12. ALL EQUIPMENT SHALL BE IDENTIFIED TO INDICATE COMPLIANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE.
13. MAXIMUM HEATING TEMPERATURE SETTING: NEW YORK STATE 72 DEGREES: NEW YORK CITY 70 DEGREES. TEMPERATURES BASED ON 5000 DEGREES DAYS. MINIMUM COOLING TEMPERATURE SETTING NEW YORK STATE 78 DEGREES: MAXIMUM DESIGN RELATIVE HUMIDITY SHALL BE 30 % WHEN PROVIDED
14. THERMAL TRANSMITTANCE VALUES:
(A.) EXTERIOR WALLS U0-.035 MAXIMUM
(B.) ENTRANCE DOORS U0-.040 MAXIMUM
(C.) GLAZING U0-.038 MAXIMUM
(D.) MAXIMUM ROOF/CEILING, FLOORS EXPOSED TO AMBIENT CONDITIONS U0-.05
(E.) MAXIMUM FLOORS OVER UNHEATED SPACES U0-.07
(F.) MINIMUM "R"
(G.) SLAB EDGE, UNHEATED SLAB AND BASEMENT WALLS BELOW GRADE R-.095
(H.) SLAB EDGE, HEATED SLAB R-.10
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATION OF THE STATE ENERGY CONSERVATION CONSTRUCTION CODE, AND SHALL PROVIDE ALL THE CRITERIA AS OUTLINED IN THESE GENERAL NOTES AS PERTAINS TO RELATED EQUIPMENT MATERIALS AND THEIR INSTALLATION AT JOB SITE
16. INSULATION MATERIALS:
NEW YORK CITY ADMINISTRATION CODE SECTION C27-81, ALL INSULATION SHALL BE OF NON-COMBUSTIBLE MATERIAL. ALL MATERIALS COVERING VAPOR BARRIERS AND ADHESIVES SHALL HAVE A FLAME SPREAD RATING NO HIGHER THAN 25 AND A SMOKE DEVELOPED RATING NO HIGHER THAN 50
17. DESIGN PROFESSIONAL STATES THAT TO THE BEST OF HIS KNOWLEDGE AND PROFESSIONAL JUDGEMENT THE DESIGN HAS BEEN MADE IN CONFORMANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CODE.
18. CONSTRUCTION OF BUILDING SHALL CONFORM TO THE STATE ENERGY CONSERVATION CODE BY THE "ACCEPTABLE PRACTICE" METHOD
19. ALL WINDOWS AND DOORS SHALL COMPLY WITH THE STATE ENERGY CONSERVATION
20. RESIDENTIAL FIREPLACE UNITS SHALL HAVE INFILTRATION LOSSES WITH THE DAMPER ON THE CLOSED POSITION NO TO EXCEED 20 CFM
FIREPLACE UNITS SHALL BE PROVIDED WITH A SOURCE OF COMBUSTIBLE AIR DUCTED FROM THE OUTDOORS OF SUFFICIENT QUANTITY TO SUPPORT COMBUSTION. THIS SOURCE SHALL BE EQUIPPED WITH A DAMPER CAPABLE OF BEING FULLY CLOSED. FIREPLACES SHALL BE EQUIPPED WITH FIREPLACE DOORS OF NON-COMBUSTIBLE CONSTRUCTION. DAMPERED COMBUSTION AIR VENTS SHALL BE PROVIDED ON EACH SIDE OR IN HEARTH WITH TOTAL RECOMMENDED CAPACITY OF 150 TO 200 CFM.
21. INFILTRATION LOSS FOR WINDOWS AND DOORS SHALL COMPLY WITH THE PROVISIONS OF THE STATE ENERGY CONSERVATION CODE
22. ALL HVAC EQUIPMENT INSTALLED SHALL BEAR A PERMANENT LABEL AFFIXED BY THE MANUFACTURER OR SUPPLIER INDICATING CONFORMANCE WITH THE STANDARD RATING CONDITIONS AND PERFORMANCE REQUIREMENTS OF THE STATE ENERGY

Envelope Compliance Certificate

2006 IECC

Section 1 Project Information

Section 2 General Information

Section 3 Requirements Checklist

Section 4. Compliance Statement

No.	Date	Description
1		
2		
3		
4		
5		

Project Description: COMMERCIAL BUILDING

Project Address: LIVONIA AVENUE BROOKLYN, N.Y.

Drawing Title: COMCHECK ENERGY NOTES

CAIOZZO BUILDING

think DESIGN ARCHITECTURE

Job No. 1054 | Scale: NTS

Date 09/15/10 | Drawn By: EMD

Drawing No. EN-101.00 | Page No. 3 OF 11

GENERAL BUILDING CODE NOTES

(BUILDING CODE CITY OF NEW YORK, EFFECTIVE DEC. 6 1978 AND ALL AMENDMENTS SHALL BE COMPLIED WITH)

1. THE FOLLOWING WORK ITEMS COMPONENTS, MATERIALS CAPACITIES ETC. ARE TO COMPLY WITH THE FOLLOWING CODE REFERENCE:

WORK ITEMS OR MATERIALS	ARTICLE OF REFERENCE STANDARD	PARAGRAPH OR SUBPARAGRAPH
A. DUCT CONSTRUCTION	RS 13-1	301 THRU 315
B. AIR INTAKES & OUTLETS	RS 13-1	401 THRU 405
C. FANS	RS 13-1	601 THRU 603
D. ELECTRIC WIRING & EQUIPMENT	RS 13-1	701 THRU 707
E. FIRE CONTROL	RS 13-1	901 THRU 907
F. CONTROLS	RS 13-1	1001, 1002 1003, 1005
G. SPRINKLER SYSTEMS	RS 17-2	C-26-1301.3
H. NOISE CRITERIA LEVELS	RS 12-4	C-26-1206.3
I. TEST PROCEDURES FOR	RS 12-5	
J. INTAKES, EXHAUSTS, RELIEFS	ART. 13	C26-1300AD
K. PIPING	ART. 14	C26-1405.1 THRU 1405.3 INCLUSIVE
L. HEATING CAPACITY	RS 12-1	

2. MATERIALS & EQUIPMENT SUBJECT TO CONTROLLED INSPECTION
A. MECHANICAL VENTILATION (M.V.) AIR CONDITIONING (A.C.)
B. EQUIPMENT USE PERMITS SHALL BE APPLIED FOR PER C26-171
1. AIR CONDITIONING AND VENTILATING SYSTEMS
2. EQUIPMENT USE PERMITS SHALL BE OBTAINED IN ACCORDANCE WITH BUILDING CODE, MEA AND BSA NUMBERS FOR EQUIPMENT SHALL BE SUBMITTED AS REQUIRED.

3. ALL EQUIPMENT SHALL COMPLY WITH SECTION C-26-1305.3 (A & 4) NOISE CONTROL AND EXTERIOR EQUIPMENT SHALL BE LOCATED MINIMUM OF 100 FT. SPHERICAL RADIUS FROM "J" OCCUPANCY BUILDINGS.

4. WHERE DUCTS PASS THROUGH WALL, FLOORS OR PARTITIONS THE SPACE AROUND THE DUCTS SHALL BE SEALED WITH MINERAL WOOL OR OTHER NON-COMBUSTIBLE MATERIAL TO PREVENT THE PASSAGE OF FLAME OF SMOKE AS PER C26-5-45

5. RATED FIRE SEPARATIONS COMPOSITIONS SHALL BE AS SHOWN ON ARCHITECTURAL DRAWINGS.
6. A STATEMENT WILL BE FILED (BY THE OWNER) THAT THE VENTILATING SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION DURING NORMAL OCCUPANCY OF THE PREMISES.

7. MINIMUM TEMPERATURE TO BE MAINTAINED DURING HEATING SEASON: 70° F WHEN OUTSIDE TEMPERATURE IS 5° F (WITH 15 MPH WIND).

8. THE VENTILATION INDEX FOR ALL AREAS COMPLIES WITH THE MINIMUM CODE REQUIREMENTS C-26-1206.2, C-26-1206.3.

9. OWNER IS AWARE OF THE NOISE CONTROL REQUIREMENTS INDICATED IN HDA DEPT. OF BUILDING DIRECTIVE 3/77 FOR OBTAINING A CERTIFICATE OF OCCUPANCY.

10. ALL VENTILATION SYSTEM COMPONENTS SHALL CONFORM TO RS 13-1, SECTION 3.

11. ALL AIR FILTERS AND FIRE DAMPERS SHALL CONFORM TO SECTION 5, AND 9 OR RS

12. ALL SAFETY REQUIREMENTS SHALL BE MET AS SPECIFIED IN RS 13-1, SECTION 8. CONTROLLED INSPECTIONS SHALL BE MADE TO INSURE COMPLIANCE WITH APPLICABLE BUILDING CODE SECTIONS AND SHALL INCLUDE THE FOLLOWING ITEMS WHERE REQUIRED
A. AIR CONDITIONING AND VENTILATING SYSTEMS

13. STANDPIPE SYSTEMS ARE FILED UNDER MISCELLANEOUS APPLICATION NUMBER

14. FIRE DAMPERS ARE BSA CAL NO. 100-65-SM.
15. SMOKE CONTROL SYSTEM COMPLIES WITH RS 13-1.
16. TO THE BEST OF THE APPLICANTS KNOWLEDGE BELIEF AND PROFESSIONAL JUDGMENT THESE PLANS ARE IN COMPLIANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE.
17. FIRE SMOKE DAMPERS ARE BSA # 176-82-SM.

18. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

THERMOSTAT SETUP INSTRUCTIONS

PROVIDE THE FOLLOWING SETUP AND PROGRAMMING ON THE HONEYWELL T7300 PROGRAMMABLE THERMOSTAT.

1. FOLLOW INSTRUCTION IN THE T7300 MANUAL WHICH COMES WITH THE THERMOSTAT. MANUALS ARE ALSO AVAILABLE FROM HONEYWELL, INC. HOME AND BUILDING CONTROL DIVISION/LAURA DORSEY, 700-236-4040)

2. SET DIP SWITCHES AND JUMPERS AS FOLLOWS:
A) DEGREES F DISPLAY
B) 12 HOUR CLOCK
C) CONTINUOUS FAN OPERATION IN OCC. MODE
D) DISABLE KEYBOARD PROGRAMMING
E) CUT JUMPER IF UNIT IS A HEAT PUMP

3. SET CLOCK AND DAY
4. SET TO DISPLAY CURRENT TEMPERATURE.
5. SET OCCUPIED START TIME AT 15 MIN BEFORE OPENING. SET UNOCCUPIED START TIME AT 30 MIN AFTER CLOSING. VERIFY HOURS WITH STORE MANAGER.

6. SETPOINTS SHALL BE AS FOLLOWS:

	OCCUPIED	UNOCCUPIED
HEATING:	70F	60F
COOLING:	72F	78F

7. SET 3 HOUR OCCUPIED OVERRIDE FUNCTION TO PROVIDE THE FOLLOWING SETPOINT OVERRIDES:
HEATING -3F
COOLING -3F

8. OA MOTORIZED DAMPER TO BE INTERCONNECTED WITH A/C UNIT

MECHANICAL SPECIFICATIONS

1. GENERAL CONDITIONS
A. THE SPECIFICATIONS HERE IN AFTER SHALL BE SUPERSEDED BY THE BUILDING OWNER'S RULES AND REGULATIONS WHEN A CONFLICT OCCURS.
B. THESE DRAWINGS INDICATE THE SIZE AND GENERAL LOCATION OF WORK. SCALED DIMENSIONS SHALL NOT BE USED. FINAL LOCATION AND MOUNTING ORIENTATION OF ALL DIFFUSERS, THERMOSTATS AND OTHER VISIBLE DEVICES ARE TO BE VERIFIED BY THE ARCHITECT.
C. PRIOR TO STARTING ANY WORK, PURCHASING OF EQUIPMENT, ETC., COORDINATE THE WORK WITH OTHER TRADES. CONFER WITH OTHER CONTRACTORS WHOSE WORK MIGHT AFFECT THIS INSTALLATION. ARRANGE ALL PARTS OF THIS WORK AND EQUIPMENT OF OTHERS WITH THE BUILDING CONSTRUCTION AND WITH ARCHITECTURAL FINISH SO THAT IT WILL HARMONIZE IN SERVICE AND APPEARANCE. IN THE EVENT THERE IS A CONFLICT IN COORDINATION BETWEEN TRADES, THE ARCHITECT/ENGINEER OF OWNER/TENANT REPRESENTATIVE WILL RESOLVE IT.

D. INTERRUPTION OF EXISTING BUILDING SERVICES IN ORDER TO MAKE NEW CONNECTIONS TO EXISTING PIPING, DUCTS, ETC. SHALL NOT BE DONE WITHOUT APPROVAL. PROVIDE 72 HOUR MINIMUM NOTICE TO BUILDING.

E. ALL PARTS OF THE WORK AND ASSOCIATED EQUIPMENT SHALL BE TESTED AND ADJUSTED TO WORK PROPERLY AND BE LEFT IN PERFECT OPERATING CONDITION.

F. WHEN CONFLICTS OCCUR IN THE SPECIFICATIONS OR ON THE DRAWINGS OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.

G. THE CONTRACTOR SHALL PROVIDE ALL ITEMS OF LABOR OR MATERIALS NOT SPECIFICALLY INDICTED, BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.

H. THE WORK UNDER THIS CONTRACT SHALL BE PERFORMED AND COORDINATED SIMULTANEOUSLY WITH WORK OF OTHER TRADES DO AS NOT TO DELAY THE OVERALL PROGRESS OF WORK.

I. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK WITH ITS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY OF THE SAME WHICH MAY BE DAMAGED LOST OR STOLEN WITHOUT ADDITIONAL COSTS TO THE OWNER/TENANT.

2. APPROVALS AND SUBSTITUTIONS
A. IT IS THE INTENT OF THESE SPECIFICATIONS THAT WHENEVER A MANUFACTURER IS SPECIFIED AND SUBSTITUTIONS ARE PROPOSED, THEY SHALL CONFORM IN ALL ASPECTS TO THE SPECIFIED ITEM. CRITERIA AS DELINEATED FOR EQUIPMENT SHALL BE INTERPRETED AS MINIMUM PERFORMANCE REQUIREMENTS. ALL SUBSTITUTIONS MUST BE APPROVED BY THE ARCHITECT/ENGINEER OR OWNER/TENANTS REPRESENTATIVE.

B. SUBSTITUTED EQUIPMENT WHERE PERMITTED MUST CONFORM TO SPACE REQUIREMENTS. ANY SUBSTITUTED EQUIPMENT THAT CANNOT MEET SPACE REQUIREMENTS WHETHER APPROVED OR NOT, SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. ANY MODIFICATION OR RELATED SYSTEMS OR ADDITIONAL COSTS THAT RESULT FROM SUBSTITUTED EQUIPMENT SHALL BE BORNE BY THIS CONTRACTOR.

C. IT SHALL BE MANDATORY FOR THIS CONTRACTOR TO SUBMIT HIS PROPOSAL PRICE BASED ON SPECIFIED MANUFACTURER OR SUPPLIER OF MATERIALS OR SERVICES. IF THE CONTRACTOR DESIRED TO SUBSTITUTE OTHER THAN SPECIFIED, HE SHALL SUBMIT SEPARATE PRICED FOR EACH OF THESE ITEMS, FOR ADDITIONS OR DEDUCTIONS TO CONTRACT PROPOSAL PRICE, FOR ACCEPTANCE OR REJECTION AT THE TIME WHEN BIDS ARE DUE. SHOULD THESE SUBSTITUTIONS BE REJECTED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SPECIFIED MATERIALS AND SERVICES.

3. SHOP DRAWINGS AND EQUIPMENT SUBMISSIONS
A. ONE (1) SEPIA, TWO (2) COPIES OF DUCTWORK, PIPING AND EQUIPMENT LAYOUTS, AND FOUR (4) COPIES OF MATERIAL AND CERTIFIED EQUIPMENT MANUFACTURER'S DATA SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION, ERECTION OR PURCHASE.

B. SUBMIT SHOP DRAWINGS OF THE FOLLOWING:
1. DUCTWORK LAYOUTS AND SHEETMETAL SHOP STANDARDS.
2. PIPE LAYOUTS.
3. MATERIAL SCHEDULES.
4. EQUIPMENT.
5. AUTOMATIC CONTROLS.

4. RECORD DRAWINGS
A. REPRODUCIBLE RECORD DRAWINGS SHALL BE SUPPLIED, UPON WHICH CORRECTIONS SHALL BE MADE, TO PROVIDE AN ACCURATE AND COMPLETE RECORD OF THE WORK AS INSTALLED.
B. REPRODUCIBLE DRAWINGS SHALL BE OBTAINED FROM THE ENGINEER WITH COST BORNE BY THIS CONTRACTOR.
5. CLEANING, TESTING, ADJUSTMENT AND BALANCING. ALL CLEANING AND TESTING WORK SHALL BE WITNESSED BY THE BUILDING.
A. CHEMICALLY CLEAN ALL NEW PIPING SYSTEMS WITH A NON-FOAMING LIQUID DETERGENT DISPERSING CLEANER THEN FLUSH THOROUGHLY UNTIL CLEAN WATER IS OBTAINED. PROVIDE ALL VALVED OUTLETS TO FILL AND FLUSH THE SYSTEM. PROVIDE ALL BLIND FLANGES AND CAPS REQUIRED TO ISOLATE EQUIPMENTS. PIPE CLEANING SHALL BE PERFORMED ACCORDANCE WITH BUILDING STANDARDS AND SPECIFICATION.

B. HYDROSTATICALLY TEST WATER PIPING AT 1.5 TIMES HOURS. ACTUAL MAXIMUM WORKING PRESSURE FOR EIGHT (8)

C. HYDROSTATICALLY TEST STEAM AND CONDENSATE PIPING (LESS THAN 50 PSIG) AT 150 PSIG FOR EIGHT HOURS.

D. CLEAN ALL DUCTWORK BEFORE TESTING.

E. LOW PRESSURE DUCTWORK (-2" WG TO 2" WG) TEST TO BE AN AUDIBLE AND VISUAL CHECK FOR LEAKS. MAXIMUM LEAKAGE TO BE 5%.

F. MAKE ALL REQUIRED ADJUSTMENTS OF AIR AND WATER SYSTEM DEVICES UNTIL ALL SPECIFIED PERFORMANCES ARE MET.

G. AIR AND WATER SYSTEM BALANCING SHALL BE PERFORMED BY AN ORGANIZATION SPECIALIZING IN THE PROCEDURES TO DO SO HAVING AT LEAST FIVE (5) YEARS EXPERIENCE.

H. BALANCING CONTRACTOR SHALL BALANCE ALL DIFFUSERS, SUPPLY FANS, EXHAUST FANS, AND WATER FLOWS TO THE QUANTITIES INDICATED ON THE DRAWINGS. AIR AND WATER FLOWS TO BE WITHIN 5% OFF THE DESIGN FLOW QUANTITIES.

I. SUBMIT THREE (3) COPIES OF BALANCE REPORTS TO THE ENGINEER FOR REVIEW.

6. VERIFYING EXISTING CONDITIONS
A. THE CONTRACTOR SHALL VISIT THE PREMISES TO DETERMINE EXISTING CONDITIONS AND COMPARE SAME WITH DRAWINGS AND SPECIFICATIONS AND SATISFY HIMSELF OF ALL CONDITIONS PRIOR TO THE SUBMISSION OF A BID PROPOSAL.

B. THE CONTRACTOR SHALL VISIT THE PREMISES TO DETERMINE ACCESS OF MATERIAL AND EQUIPMENT TO THE FINAL INSTALLED LOCATION PRIOR TO SUBMITTING HIS BID.

C. NO ALLOWANCES WILL BE MADE FOR FAILURE TO COMPLY WITH THESE REQUIREMENTS AND A BID PROPOSAL SHALL BE CONSTRUED AS EVIDENCE HE HAS DONE SO.

D. RETAIN ALL EXISTING MECHANICAL WORK OUTSIDE THE PROJECT AREA UNLESS OTHERWISE NOTED.
E. MAINTAIN SERVICE CONTINUITY TO ALL AREAS NOT BEING RENOVATED.

7. REMOVALS AND ALTERATIONS
A. THE CONTRACTOR SHALL REMOVE, RELOCATE, REPLACE, ADJUST, ADAPT AND MODIFY EXISTING EQUIPMENT AND/OR SYSTEMS AS REQUIRED BY THE DRAWINGS OR SPECIFICATION AND AS MAY BE REQUIRED FOR THE COMPLETION OF WORK IN THIS CONTRACT. ALL MODIFICATIONS, ALTERATIONS AND REMOVALS OF EXISTING WORK SHALL BE SPECIFICALLY PRE-APPROVED BY THE BUILDING.

B. ALL REMOVED EQUIPMENT AND MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE.

8. ACCESS DOORS IN FINISHED CONSTRUCTION
A. THIS CONTRACTOR SHALL PREPARE A LIST OF ALL ACCESS DOORS REQUIRED FOR OPERATION AND MAINTENANCE OF ALL CONCEALED EQUIPMENT, WHICH SHALL BE SUPPLIED TO THE GENERAL CONTRACTOR WHO SHALL FURNISH AND INSTALL SAME. ACCESS DOORS SHALL BE OF AMPLE SIZE AND MINIMUM OF 18"x 18".

9. IDENTIFICATION OF EQUIPMENT AND CONTROLS
A. ALL EQUIPMENT SHALL BE LABELED WITH BLACK BACK LITE PLATES WITH WHITE ENGRAVED UPPER CASE LETTERS ENCLOSED BY WHITE BORDER ON BEVELED EDGE SCREWED THEREON WHICH SHALL INDICATE SYSTEMS SERVICE.

B. ALL PIPING SYSTEMS SHALL BE IDENTIFIED AS TO THEIR CONTENTS AND DIRECTION OF FLOW WITH PVC PIPING BANDS AT MAXIMUM OF 30 FEET SPACING ON STRAIGHT RUNS AND AT ALL VALVE LOCATIONS.

C. ALL VALVES SHALL BE TAGGED WITH 2" BRASS PLATED TAGS AND CHAINS. A VALVE CHART SCHEDULE FRAMED AND WALL MOUNTED SHALL BE INSTALLED WHERE DIRECTED.

10. CODES, PERMITS AND INSPECTIONS
A. ALL WORK SHALL MEET OR EXCEED LATEST REQUIREMENTS OF STATE, COUNTY, MUNICIPAL AND OTHER AUTHORITIES EXERCISING JURISDICTION OVER THE WORK OF THIS PROJECT.
B. FILE ALL DOCUMENTS AS REQUIRED TO OBTAIN APPROVALS FROM AUTHORITIES HAVING JURISDICTION AND PAY ALL FILING FEES.
C. THIS CONTRACTOR SHALL PERFORM CONTROLLED INSPECTIONS AS REQUIRED BY STATE AND LOCAL AUTHORITIES.

11. GUARANTEES
A. ALL WORK SHALL BE GUARANTEED TO BE FREE FROM LEAKS OR OTHER DEFECTS. ALL DEFECTIVE MATERIAL OF WORK SHALL BE REPLACED OR REPAIRED.
B. THE GUARANTEE PERIOD SHALL BE FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE WHICH SHALL BE THE DATE OF FINAL PAYMENT OR THE DATE OF FORMAL NOTICE OF ACCEPTANCE, WHICHEVER IS EARLIER.

12. WORK INCLUDED
A. THE WORK INCLUDED, BUT IS NOT LIMITED TO THE FOLLOWING:
1. SHEET METAL DUCT, AIR INLETS AND OUTLETS, AND ALL APPURTENANCES.
2. SUPPLEMENTAL AIR CONDITIONING UNITS.
3. HOT WATER COMPLETE WITH VALVES INSULATION, AND ALL REQUIRED ACCESSORIES.
4. SUPPLEMENTAL EXHAUST AND/OR OUTSIDE AIR SYSTEMS.
5. FIRE SMOKE DAMPERS TO MAINTAIN THE CONTINUITY OF BUILDING SMOKE CONTROL SYSTEMS.
6. PIPE PAINTING.
7. SUPPORTS, ANCHORS, HANGERS, AND AUXILIARY STRUCTURAL MEMBERS REQUIRED FOR SUPPORT OF MECHANICAL WORK.
8. AUTOMATIC TEMPERATURE CONTROLS.
9. CUTTING AND ROUGH PATCHING.
10. SYSTEM ACTIVATION AND START-UP.
11. FIRE STOPPING OF WALL AND FLOOR PIPE AND DUCT PENETRATIONS.
12. RIGGING, HOISTING AND SCAFFOLDING.
13. MOTOR STARTERS AND CONTROLLERS WITH ASSOCIATED FUSES.
14. INSTALL DUCT TYPE SMOKE DETECTORS.

13. WORK INCLUDED UNDER OTHER SECTIONS
A. THE FOLLOWING WORK WILL BE DONE UNDER OTHER SECTIONS:
1. FINISH PAINTING AND PATCHING.
2. ELECTRICAL WIRING FOR POWER AND FIRE ALARM INTERLOCKING CONTROLS.
3. FURNISH AND INSTALL ACCESS DOORS IN FINISHED CONSTRUCTION.
4. ELECTRICAL DISCONNECT SWITCHES.
5. EXHAUST AND OUTSIDE AIR INTAKE LOUVERS.
6. FURNISHING DUCT TYPE SMOKE DETECTORS.

14. OPERATING AND MAINTENANCE INSTRUCTIONS
A. AFTER FINAL TEST AND ADJUSTMENTS FULLY INSTRUCT TENANT/OWNERS OPERATING PERSONNEL IN ALL DETAILS OF OPERATION FOR EQUIPMENT INSTALLED. A SIGNED RECEIPT WHICH SHALL BE OBTAINED FROM THE OPERATOR, SHALL BE CONSTRUED AS EVIDENCE THAT INSTRUCTIONS WERE SATISFACTORY.

B. FURNISH THREE (3) COPIES OF WRITTEN DESCRIPTIONS OF ALL SYSTEMS COVERING ALL MANUAL OPERATING PROCEDURES, AUTOMATIC CONTROL DESCRIPTIONS, AND AUTOMATIC CONTROL TEMPERATURE AND PRESSURE SETTINGS. WRITTEN DESCRIPTIONS SHALL INCLUDE MAINTENANCE AND LUBRICATION SCHEDULES, PARTS LISTS, PERFORMANCE CURVES AND DATA, WIRING DIAGRAMS, MANUFACTURERS RECOMMENDED OPERATING AND MAINTENANCE INSTRUCTIONS, SPARE PARTS RECOMMENDATIONS AND TROUBLE SHOOTING DIAGNOSTIC INSTRUCTIONS. THEY SHALL BE CLEARLY MARKED TO INDICATE APPLICABILITY.

15. SHEET METAL DUCTWORK
A. ALL DUCTWORK, ENCLOSURES, DAMPERS AND ALL AUXILIARY DEVICES AND WORK NECESSARY TO MAKE THE VARIOUS AIR CONDITIONING AND VENTILATING SYSTEMS COMPLETE AND READY FOR SATISFACTORY OPERATION, SHALL BE FURNISHED AND INSTALLED.

B. ALL LOW PRESSURE DUCTWORK SHALL BE GALVANIZED STEEL EXCEPT WHERE OTHERWISE SPECIFIED WITH GAUGES, BRACING AND CONSTRUCTION IN ACCORDANCE WITH THE SMACNA DUCT MANUAL STANDARDS. TOTAL AIR VOLUME FOR LOW PRESSURE DUCT SYSTEMS SHALL BE AT LEAST 95% OF FAN SUPPLY VOLUME WHEN MEASURED BY DUCT TRAVERSES WITH A PITOT TUBE AND WATER MANOMETER.

C. IN ACCORDANCE WITH SMACNA STANDARDS, PROVIDE DUCTWORK CASINGS ACCESS DOORS TO ALL CONCEALED CONTROLS, FUSIBLE LINKS OR DAMPERS ETC.

D. PROVIDE MANUAL DAMPERS IN EACH SPLIT OR TAP CONNECTION TO TRUNK DUCTS FOR BALANCING PURPOSES. EACH PROVIDED WITH OPERATOR AND LOCKING DEVICE LOCATIONS TO BE AS INDICATED ON PLANS.

E. PROVIDE FUSIBLE LINK FIRE DAMPERS AT LOCATIONS SHOWN ON DRAWINGS AND WHERE NECESSARY TO COMPLY WITH LOCAL OR OTHER AGENCIES OR JURISDICTIONS REQUIREMENTS. FIRE DAMPERS SHALL BE UL LISTED.

F. WHERE DUCTS ARE SHOWN TO BE ACOUSTICALLY LINED, THE SIZES SHOWN ON THE PLANS SHALL BE THE CLEAR INSIDE DIMENSIONS WHEN LINING IS TO BE PROVIDED.

G. ANGLES AND OTHER STRUCTURAL SHAPES USED IN CONNECTION WITH BOTH STEEL AND ALUMINUM SHEETS SHALL BE ZINC-COATED STEEL. HANGER SHALL BE 3/8 MINIMUM DIAMETER HOT ROLLED MILL STEEL.

H. FLEXIBLE CONNECTIONS SHALL BE USED AT ALL DUCT CONNECTIONS TO ROTATING EQUIPMENT. FLEXIBLE DUCT SHALL NOT EXCEED SIX (6) INCHES IN LENGTH AND BE CONSTRUCTED OF FIBERGLASS CLOTH STEEL SPRING FRAME VAPOR BARRIER AND FIRE RATED CONFORMING TO NFPA 90A.

16. ACOUSTICAL LINING
A. ACOUSTICAL LINING SHALL BE OWENS-CORNING AEROFLEX 300 OR APPROVED EQUAL. THICKNESS SHALL BE ONE INCH (1").

B. THE MATERIAL SHALL BE SPECIFICALLY DESIGNED FOR THIS APPLICATION AND SHALL HAVE VINYL OR NEOPRENE COATING WHICH SHALL PREVENT EROSION, FLAKING OR PEELING OF THE LINING DUE TO THE AIR MOTION FOR THE WORKING VELOCITIES, AND SHALL BE FIRE RESISTANT, ODORLESS AND VERMIN-PROOF. PROVIDE A PERFORATED METAL LINER WHERE VELOCITIES EXCEED 2000 FPM.

C. ABUTTING SEAMS TO BE CAULKED AND SEALED.
D. AIR CONDITIONING SYSTEMS SHALL HAVE 75 FEET MINIMUM SUPPLY DUCT LINING.

E. ALL JOINTS AND CONNECTIONS SHALL BE CAULKED AIRTIGHT WITH HIGH PRESSURE SEALANTS.

17. GRILLES, REGISTERS AND DIFFUSERS
A. FURNISH AND INSTALL ALL METAL DIFFUSERS, GRILLES AND REGISTERS WITH MANUFACTURERS MODELS, SIZES, ACCESSORIES, FINISHES ETC. SUBMIT FOR APPROVAL PRIOR TO RELEASE FOR FABRICATION AND DELIVERY.

B. A SCHEDULE OF DIFFUSERS, GRILLES AND REGISTERS WITH MANUFACTURERS MODELS, SIZES, ACCESSORIES, FINISHES ETC. SHALL BE SUBMITTED FOR APPROVAL PRIOR TO RELEASE FOR FABRICATION AND DELIVERY.

C. DUCTWORK LAYOUTS AND ROUTES AS SHOWN ON THE DRAWINGS ARE SCHEMATIC. THEREFORE CHANGES IN DUCT SIZE AND/OR LOCATIONS SHALL BE MADE WHERE NECESSARY TO CONFORM TO SPACE CONDITIONS OR OBTAIN MAXIMUM HEADROOM CONDITIONS WITHOUT ADDITIONAL COSTS TO THE OWNER.

D. AIR DIFFUSERS AND GRILLES SHALL BE LOCATED IN CONFORMANCE TO ARCHITECTURAL REFLECTED CEILING PLANS.

E. FRAMING FOR ALL AIR DISTRIBUTION DEVICES SHALL CONFORM TO AND ACCOMMODATE THE CEILING CONSTRUCTION.

1. SQUARE CEILING DIFFUSERS FURNISHED WITH OPPOSED BLADE DAMPERS ALUMINUM AND WHITE FINISH.

2. REGISTERS AND GRILLES SHALL BE ALUMINUM, STANDARD WITH WHITE FINISH. SUPPLY AND RETURN REGISTERS SHALL, RETURN REGISTERS SHALL INCORPORATE OPPOSED BLADE DAMPERS.

18. INSULATION
A. ALL PIPING, DUCTWORK AND EQUIPMENT THAT TRANSMITS OR RECEIVES HEAT, WILL FORM CONDENSATION, OR IS SUBJECT TO FREEZING, SHALL BE INSULATED UNLESS IT IS SPECIFICALLY STATED OTHERWISE. INSULATION SHALL CONFORM TO RECOMMENDATIONS OF THE NFPA AND SHALL HAVE COMPOSITE FIRE AND SMOKE HAZARD RATINGS AS TESTED BY PROCEDURE ASTM-E-84, NFPA 255 OR UL-723, NOT EXCEEDING FLAME SPREAD 25 AND SMOKE DEVELOPED 50.

B. DUCTWORK INSULATION
1. CONDITIONED SUPPLY AIR DUCTS IN AIR CONDITIONED SPACE, ONE INCH (1") FIBERGLASS WITH VAPOR SEAL.
2. OUTSIDE AIR DUCTS, INTAKE AND EXHAUST PLENUMS, TWO INCHES (2") FIBERGLASS WITH EXTERNAL VAPOR SEAL. ABUTTING SEAMS TO BE SEALED.

C. PIPE INSULATION
1. CONDENSATE DRAIN: FIBERGLASS
2. REFRIGERANT PIPE: 1/2" PERMA FLEX

D. PERFORM ALL WORK IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
E. SEAL ALL VAPOR BARRIERS CONTINUOUS AND THROUGHOUT AGAINST MOISTURE PENETRATIONS.
F. PIPE FITTINGS, FLANGES AND VALVES SHALL BE INSULATED.

G. PROTECT PIPE INSULATION AT HANGERS, GUIDES AND ROLLERS BY 16 GAUGE GALVANIZED METAL SHIELD ON OUTSIDE OF THE INSULATION AND VAPOR BARRIER.

19. SLEEVES AND ESCUTCHEONS FOR PIPING
A. PROVIDE SLEEVES FOR PIPES PASSING THROUGH EXTERIOR WALLS.
B. PIPING THROUGH FLOORS OR ROOFS SHALL BE SCHEDULE 40 STEEL AND THROUGH INTERIOR WALLS AND PARTITIONS 18 GAUGE GALVANIZED STEEL.
C. SPACE BETWEEN PIPE OR PIPE INSULATION SHALL BE CAULKED WITH INCOMBUSTIBLE MATERIAL, ROPE OR MINERAL WOOL TO WITHIN 1/2" OF WALL SPACES AND FILLED WITH CAULKING COMPOUND TO WALL SPACES.

20. INSTALLATION OF PIPING - GENERAL
A. FURNISH AND INSTALL PIPING SYSTEMS WHICH ARE SCHEMATICALLY INDICATED ON THE DRAWINGS IN CONFORMANCE TO THE LATEST ASA CODE FOR PRESSURE PIPING.

B. PROVIDE PROPER PROVISION FOR EXPANSION OF CONSTRUCTION OR PIPING TO PREVENT STRAIN TO THE APPARATUS CONNECTED THERE WITH AND TO THE BUILDING STRUCTURE.

C. ARRANGE PIPING TO COILS AND EQUIPMENT TO PERMIT SERVICING OR REMOVALS WITHOUT DISMANTLING PIPING BRANCHES.

D. FURNISH AND INSTALL PIPING HANGERS, SUPPORTS, ANCHORS AND GUIDES HAVING A BUILT-IN SAFETY FACTOR OF FIVE (5) IN CONFORMANCE TO THE LARGEST ASA CODE FOR PRESSURE PIPING. ALL HANGER SPECIALTIES SHALL BE FURNISHED WITH ZINC CHROMATE PRIME PAINT FINISH.

E. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDENSATE DRAIN PIPING WITH FIBERGLASS INSULATION TO PREVENT CONDENSATION.

F. PIPING SCHEDULE

SERVICE	MATERIALS	TYPE	WEIGHT
HOT WATER	STEEL	BLACK	SCHEDULE 40
DRAIN RUNOUTS	COPPER	HARD	TYPE I
REFRIGERANT/CONDENSER	COPPER	HARD	TYPE K OR G, 15 SILVER SOLDERED/ BRONZE JOINT

G. SCHEDULE OF PIPING FITTINGS:

SERVICE	SIZE	MATERIALS	TYPE	WEIGHT
HOT WATER	UP TO 3"	CAST IRON	SCREWED	125 POUND
DRAINS	ALL	WROUGHT COPPER	SOLDER	STANDARD

SUPPLY / RETURN AIR DUCT NOTES

1. ALL DUCTWORK WILL BE SHOWN AS INSIDE CLEAR DIMENSIONS. DO NOT EXCEED 1600 FPM TRUNK DUCT VELOCITY OR PRESSURE DROP OF 0.10 IN WG PER 100 FEET OF DUCT AFTER FIRST STOP. DO NOT EXCEED 1200 FPM TRUNK DUCT VELOCITY OF PRESSURE DROP OF 0.08 INCHES WG PER 100 FT.
2. DO NOT EXCEED A DUCT / WIDTH ASPECT RATIO OF 3.
3. UTILIZE UP TO FOURTEEN FEET OF FLEXIBLE DUCTWORK TO MAKE CONNECTIONS FROM THE TRUNK TOP TO CEILING DIFFUSERS. REQUIRES INCH LONG FLEXIBLE DUCT CONNECTIONS BY PROVIDING GRILLE COLLAR EXTENSION AS REQUIRED. FLEXIBLE DUCT WORK SHALL BE 15 TIMES THE DUCT DIAMETER.
4. RIGID ROUND LOCK DUCT WILL BE USED TO EXTEND TO GRILLES IN EXCESS OF 14 FEET FROM THE TRUNK. USE ADJUSTABLE ELBOWS WHEN DIRECTIONAL CHANGES ARE REQUIRED WHEN USING RIGID ROUND DUCT.
5. PROVIDE BALANCING DAMPERS AT ALL TRUNK DUCTS TOPS. DAMPERS SHALL BE FABRICATED OF FACTORY MADE PARTS AND BE PROVIDED WITH WING NUT TIGHTENERS ON BOTH SIDES. A HANDLE SHALL BE PROVIDED TO ADJUST THE DAMPER BLADES AND BALANCED POSITIONS SHALL BE MARKED WITH PERMANENT MARKERS WHEN BALANCING IS COMPLETED.
6. COORDINATE ALL DUCTWORK WITH THE STRUCTURAL AND OTHER DISCIPLINES TO ASSURE CLEARANCE.
7. ALL DUCTWORK SHALL BE DRAWN SINGLE LINE WITH ALL APPROPRIATE FITTINGS AND DEVICES SHOWN.
8. PROVIDE SCHEDULES FOR FIRE NATIONAL ACCOUNT REQUIREMENTS FOR PLACEMENT OF ORDERS.
9. PROVIDE ONE ROOF MOUNTED TOILET EXHAUST FAN FOR THE PUBLIC RESTROOM. A CEILING MOUNTED EXHAUST FAN MAY BE USED IN THE STAFF TOILETS WHEN REQUIRED.

10. THE TOILET EXHAUST FANS SERVING PUBLIC AREAS SHALL BE WIRED DIRECTLY TO A CIRCUIT BREAKER AND SHALL RUN CONTINUOUSLY WHEN THE BUILDINGS LIGHTS ARE ON. THE STAFF TOILET EXHAUST FAN MAY BE WIRED TO LIGHT SWITCH IN ROOM.

11. PROVIDE ONE CFM PER SQUARE FOOT OF VESTIBULE AREA WITH NO RETURN AIR. VERIFY THAT THE VESTIBULE WILL NOT OVER PRESSURIZE TO CONFORM WITH ADAM.

12. TOILET ROOMS ARE TO BE PROVIDED WITH 50 CF. OF EXHAUST PER TOILET AND URINAL INSTALLED OR 2 CFM PER SQUARE FEET WHICHEVER IS GREATER.

13. INTERIOR SPACE TEMPERATURE SHALL BE 73° F FOR COOLING AND 71° FOR HEATING.

14. ALL UNITS AND MADE UP AIR UNIT SUPPLY AIR AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH EXTERNAL DUCT WRAP. THIS INCLUDED ALL RIGID ROUND DUCT WORK. ALL INSULATION VAPOR BARRIER SHALL BE MAINTAINED BY SEALING AT ALL JOINTS WITH MANUFACTURER APPROVED MATERIALS. REFER TO SPECIFICATIONS FOR THICKNESS AND DENSITIES REQUIRED.

15. NO EGG CRATE RETURN AIR GRILLES WILL BE ACCEPTABLE. NO PERFORATED SUPPLY DIFFUSERS WILL BE ACCEPTABLE IN ANY PUBLIC AREA OR COOKING AREA. LOUVER FACE SUPPLY DIFFUSERS AND BAR TYPE RETURN AIR GRILLES SHALL BE ACCEPTABLE. ALL DIFFUSERS AND GRILLES SHALL BE SELECTED NOT TO EXCEED NC-30.

VENTILATION INDEX NOTES

A. UPON COMPLETION OF THE VENTILATING SYSTEMS A TEST SHALL BE CONDUCTED IN THE PRESENCE AND UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT OR OTHER PERSONS HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF VENTILATING SYSTEMS AND QUALIFIED TO CONDUCT SUCH TESTS. THE TESTS SHALL SHOW COMPLIANCE WITH THE AMOUNT OF INTAKE AND EXHAUST FOR EACH ROOM OR SPACE SHOWN UPON THE APPROVED PLANS AND THE PROPER FUNCTIONING OF ALL DEVICES BEFORE THE SYSTEM IS APPROVED.
B. THE LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT OR OTHER QUALIFIED PERSON WHO CONDUCTS THE TEST SHALL FILE A CERTIFICATE AS TO WHETHER THE TEST SHOWS THAT THE RATE OF AIR SUPPLY AND EXHAUST COMPLIES WITH APPROVED PLANS.
C. A STATEMENT SHALL BE FILED BY THE OWNER THAT THE SYSTEMS OF VENTILATION WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS PROVIDED IN THE APPLICABLE SECTIONS OF THE LAW.
D. THE COMPLETE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE DEPARTMENT OF BUILDING RULES. DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH RULE R30-H OF THE BUILDING CODE AND AS PER ASHRAE "GUIDE".
E. THE VENTILATION INDEX FOR ALL AREAS COMPLIES WITH THE MINIMUM CODE REQUIREMENTS (C26-1206.2, C26-1206.3)
F. ALL CALCULATIONS OF VENTILATION INDEX ARE MADE WITHOUT TAKING ANY CREDIT FOR EXTERIOR WINDOWS AND/OR OPENINGS FOR A/C AREAS.
G. PROVIDE FIRE DAMPERS WHERE DUCTS PIERCE FLOOR SLABS, FIRE WALLS, DUCT SHAFTS AND FIRE PROOF DUCT ENCLOSURES AND WHERE OPENINGS ARE INSTALLED ON FIRE WALLS. FIRE DAMPERS SHOULD BE PROVIDED AND CONSTRUCTED AS PER REFERENCE STANDARD RS13. FIRE DAMPERS TO BE OF TYPE APPROVED BY THE NATIONAL BOARD OF FIRE UNDERWRITERS AND SHALL HAVE UNDERWRITERS LABEL. FIRE DAMPERS SHALL BE APPROVED BY N.Y.C. BOARD OF STANDARDS AND APPEALS (B.S.A.) AND HAVE APPROVAL NUMBERS ON DAMPERS.
H. DUCT PENETRATIONS THROUGH WALLS, FLOORS OR PARTITIONS SHALL BE SEALED AS PER RS13-30.
I. EXTERIOR DUCT INSTALLATIONS SHALL BE BS & A APPROVED TYPE.

VENTILATION INDEX – TYPICAL

RM	AREA	CUBIC AREA	# OF PEOPLE	VENT INDEX	REQ'D. CFM SUPPLY	REQ'D. CFM RETURN	ACT. CFM SUPPLY	ACT. CFM RETURN
SALES	655sf	5,240	22	567	1553	1294	2000	2000
TOILET	40sf	320	1	450	–	50	–	75

CAIOZZO BUILDING

COMMERCIAL BUILDING

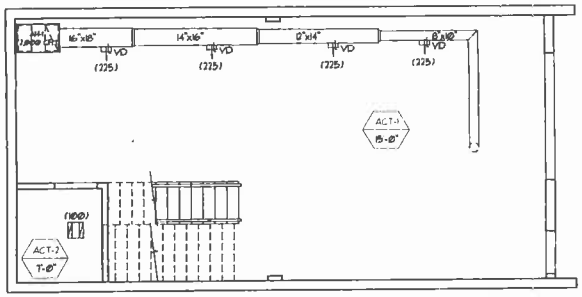
LIVONIA AVENUE
BROOKLYN, N.Y.

COMCHECK
ENERGY NOTES

1054
09/10/10
MS
EMJ

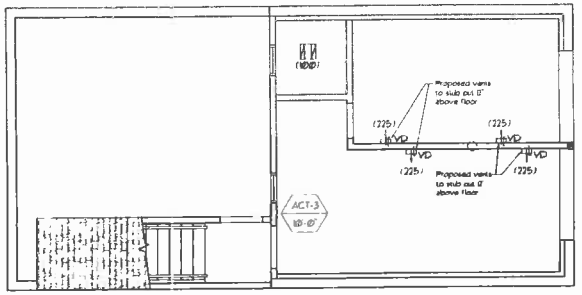
M-101.00

2 OF 11



PROP. FIRST FLOOR MECH. PLAN

scale: 1/4" = 1'-0"

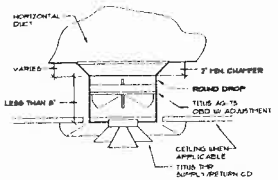


PROP. SECOND FLOOR MECH. PLAN

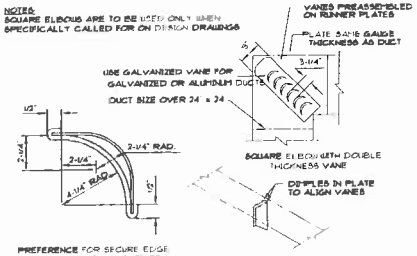
scale: 1/4" = 1'-0"

HVAC LEGEND

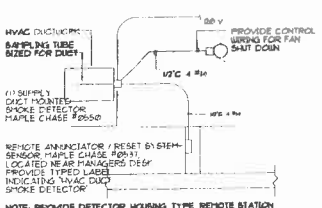
- TURNING VANES
- THERMOSTAT
- MANUAL VOLUME DAMPER
- BACK DRAFT DAMPER
- DUCT SMOKE DETECTOR
- COMBINATION SMOKE AND FIRE DAMPER
- SWIN IN TAKE-OFF & VOLUME DAMPER
- CEILING RETURN/ EXHAUST GRILLE
- FLEXIBLE DUCT 5'-0" LONG MAX
- 8" X 8" — INDICATES LINED 0" = 8" OD SHEETMETAL (1ST FIGURE = SIDE SHOWN, 2ND FIGURE = SIDE NOT SHOWN)
- 8" X 8" — INDICATES 14" = 10" OD SHEETMETAL W/ 1" SOUNDLINER (LINED) U = 8" LD NET
- FLEXIBLE CONNECTION



1 SUPPLY AND RETURN AIR DETAIL



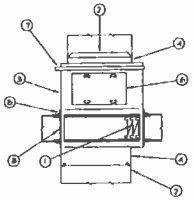
2 TURNING VANE DETAIL



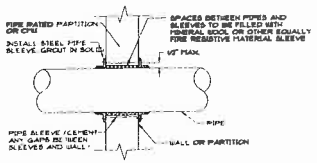
3 DUCT DETECTOR DETAIL

FIRE DAMPER ACCESS DOOR SIZES

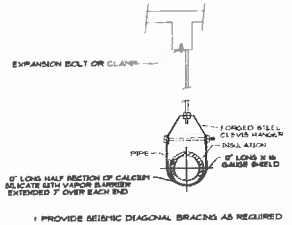
DUCT WIDTH	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	44	48
8	10"x8"	12"x8"	14"x8"	16"x8"	18"x8"	20"x8"	22"x8"	24"x8"	26"x8"	28"x8"	30"x8"	32"x8"	34"x8"	36"x8"	38"x8"	40"x8"	42"x8"	46"x8"	50"x8"
10		12"x10"	14"x10"	16"x10"	18"x10"	20"x10"	22"x10"	24"x10"	26"x10"	28"x10"	30"x10"	32"x10"	34"x10"	36"x10"	38"x10"	40"x10"	42"x10"	46"x10"	50"x10"
12			14"x12"	16"x12"	18"x12"	20"x12"	22"x12"	24"x12"	26"x12"	28"x12"	30"x12"	32"x12"	34"x12"	36"x12"	38"x12"	40"x12"	42"x12"	46"x12"	50"x12"
14				16"x14"	18"x14"	20"x14"	22"x14"	24"x14"	26"x14"	28"x14"	30"x14"	32"x14"	34"x14"	36"x14"	38"x14"	40"x14"	42"x14"	46"x14"	50"x14"
16					18"x16"	20"x16"	22"x16"	24"x16"	26"x16"	28"x16"	30"x16"	32"x16"	34"x16"	36"x16"	38"x16"	40"x16"	42"x16"	46"x16"	50"x16"
18													34"x18"	36"x18"	38"x18"	40"x18"	42"x18"	46"x18"	50"x18"
24													34"x24"	36"x24"	38"x24"	40"x24"	42"x24"	46"x24"	50"x24"



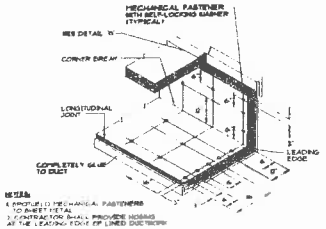
4 LOW PRESSURE FIRE DAMPER DETAIL



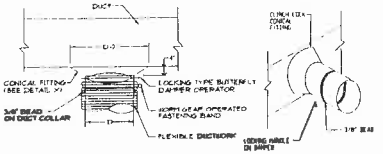
5 SLEEVE DETAIL



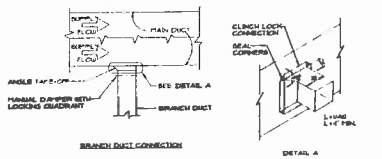
6 PIPE HANGING DETAIL



ACOUSTICAL DUCT LINING DETAIL



FLEXIBLE DUCT CONNECTION TO MAIN DUCTS



BRANCH DUCT CONNECTION

DETAIL 'A'

8 LOW PRESSURE BRANCH DUCT CONNECTION

CAIOZZO BUILDING

COMMERCIAL BUILDING

LIVONIA AVENUE
BROOKLYN, N.Y.

COMCHECK
ENERGY NOTES

think design architecture

Rev.	Date	Description
1	10/4/10	
2	10/5/10	
3	10/6/10	
4	10/7/10	
5	10/8/10	

Drawn by: VJS
Checked by: FJD
Date: 09/14/10
Scale: AS NOTED
Job No: 1004

M-102.00

Sheet 11 of 11

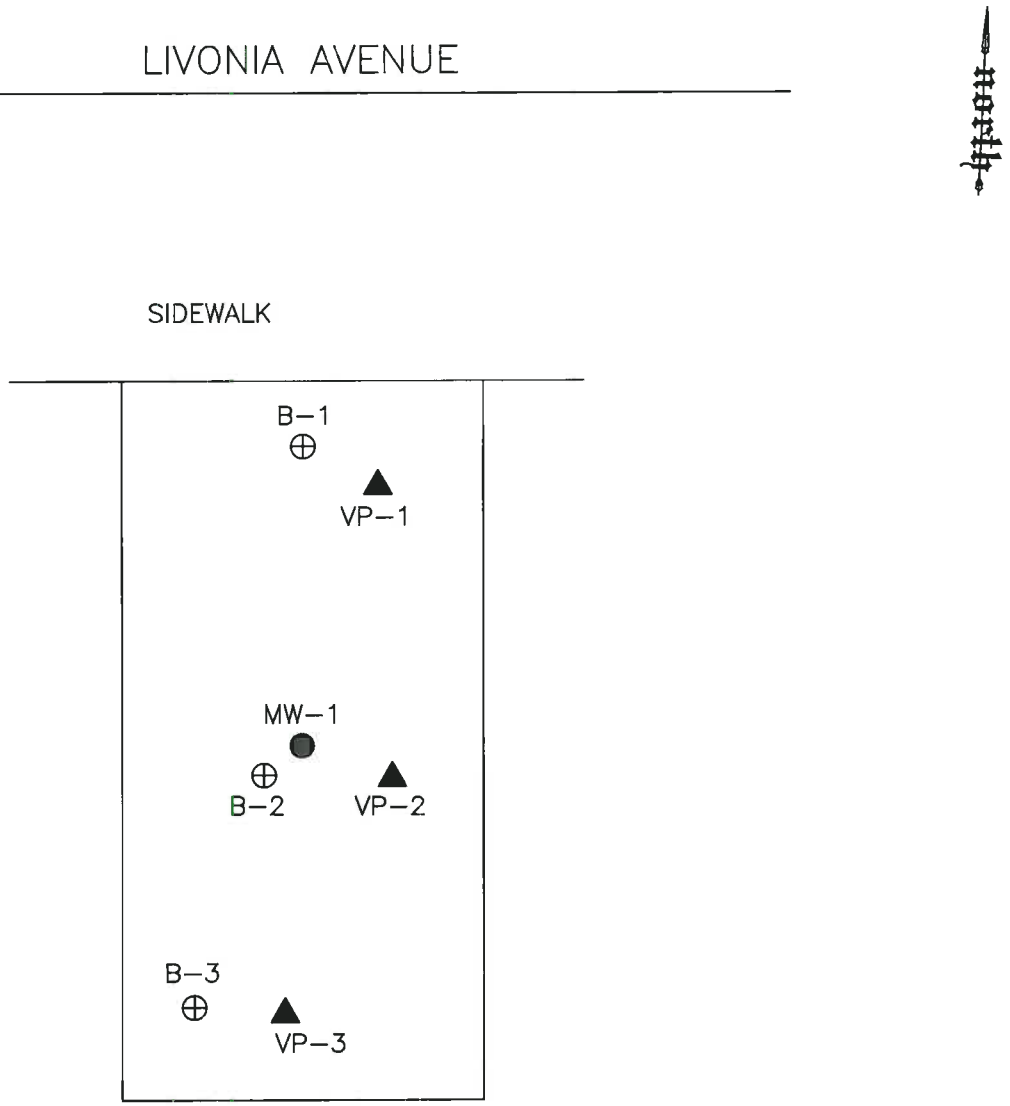
AERIAL PHOTOGRAPH

Figure 3
Surrounding Land Usage

876 Livonia Avenue
Brooklyn, NY

N
W E
S

EnviroTrac
Environmental Services
5 Old Dock Road
Yaphank, NY 11980
P: 631-924-3001 F:631-924-5001



LEGEND:

- ⊕ SOIL BORING LOCATION
- ▲ SOIL VAPOR MONITORING POINT
- ● TEMPORARY WELL

EnviroTrac
ENVIRONMENTAL SERVICES
5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924–3001 FAX: (631)924–5001

0 5 FT. 10

REVISION DATE: MAY 22, 2012

APPROX. SCALE: 1" = 10 FEET

REVISED BY: TB

876 LIVONIA AVENUE
BROOKLYN, NY

BORING LOCATION PLAN

FIGURE # 4

Tables

Table 1

PCB Concentrations in Soil
876 Livonia Avenue

Analytical Parameter	B-1 0-2' (2/28/12)	B-1 Dup 0-2' (2/28/12)	B-1 6-8' (2/28/12)	B-2 0-2' 2/28/12	B-2 6-8' 2/28/12	B-3 0-2' 2/28/12	B-3 6-8' (2/28/12)	NYSDEC Part 375 RCUSCO	NYSDEC Part 375 UUSCO
PCBs (ppm)									
PCB-1016	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1221	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1232	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1242	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1248	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1254	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1260	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1262	ND	ND	ND	ND	ND	ND	ND	1	0.1
PCB-1268	ND	ND	ND	ND	ND	ND	ND	1	0.1
Total PCBs	ND	ND	ND	ND	ND	ND	ND	1	0.1

Notes:

1. NA = Not Available / Not Applicable
2. NS = Not Sampled
3. NYSDEC = New York State Department of Environmental Conservation
4. ppm = parts per million (mg/Kg)
5. PCBs = Polychlorinated Biphenyls
6. ND = Not Detected above the method detection limit of the laboratory.
7. RCUSCO = Restricted Commercial Use Soil Cleanup Objectives
8. UUSCO = Unrestricted Use Soil Cleanup Objectives

= Concentration exceeds the Part 375 RUCSCO

* - Multiple aroclor's of PCBs are present. PCB pattern closely matches a mixture of Aroclor 1254 and 1286.

Table 2

VOC Concentrations in Soil
876 Livonia Avenue

Analytical Parameter	B-1 0-2' 2/28/12	B-1 Dup 0-2' 2/28/12	B-1 6-8' 2/28/12	B-2 0-2' 2/28/12	B-2 6-8' 2/28/12	B-3 0-2' 2/28/12	B-3 6-8' 2/28/12	NYSDEC Part 375 RCUSCO	NYSDEC Part 375 UUSCO
VOCs (ppm)									
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	500	0.68
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	240	0.27
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	500	0.33
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	190	3.6
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	500	1.1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	30	0.02
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	190	8.4
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	280	2.4
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	130	1.8
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	NA	NA
Acetone	ND	ND	ND	ND	ND	ND	ND	500	0.05
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	NA	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	44	0.06
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromoform	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	NA	NA
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	22	0.76
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	500	1.1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	350	0.37
Chloromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	500	0.25
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dibromoethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Ethylbenzene	0.023	ND	ND	ND	ND	ND	ND	390	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Isopropylbenzene	0.014	ND	ND	ND	ND	ND	ND	NA	NA
m&p-Xylene	ND	ND	ND	ND	ND	ND	ND	500	0.26
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND	ND	500	0.12
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	500	0.93
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	500	0.05
Naphthalene	0.039	ND	ND	ND	ND	ND	ND	500	12
n-Butylbenzene	0.0059	ND	ND	ND	ND	ND	ND	NA	NA
n-Propylbenzene	0.017	ND	ND	ND	ND	ND	ND	500	3.9
o-Xylene	ND	ND	ND	ND	ND	ND	ND	500	0.26
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	500	11
Styrene	ND	ND	ND	ND	ND	ND	ND	NA	NA
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	500	5.9
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	150	1.3
Tetrahydrofuran (THF)	ND	ND	ND	ND	ND	ND	ND	NA	NA
Toluene	ND	ND	ND	ND	ND	ND	ND	500	0.7
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	500	0.26
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	500	0.19
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	NA	NA
trans-1,4-dichloro-2-butene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	200	0.47
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Trichlorotrifluoroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	13	0.02

Notes:

1. NA = Not Available / Not Applicable
2. NS = Not Sampled
3. NYSDEC = New York State Department of Environmental Conservation
4. ppm = parts per million (mg/Kg)
5. VOCs = Volatile Organic Compounds
6. ND = Not Detected above the method detection limit of the laboratory.
7. RCUSCO = Restricted Commercial Use Soil Cleanup Objectives
8. UUSCO = Unrestricted Use Soil Cleanup Objectives

= Concentration exceeds the Part 375 RUCSCO

Table 3

SVOC Concentrations in Soil
876 Livonia Avenue

Analytical Parameter	B-1 0-2' 2/28/12	B-1 Dup 0-2' 2/28/12	B-1 6-8' 2/28/12	B-2 0-2' 2/28/12	B-2 6-8' 2/28/12	B-3 0-2' 2/28/12	B-3 6-8' 2/28/12	NYSDEC Part 375 RCUSCO	NYSDEC Part 375 UUSCO
SVOCs (ppm)									
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Methylphenol (o-cresol)	ND	ND	ND	ND	ND	ND	ND	500	0.33
2-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	NA	NA
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
3&4-Methylphenol (m&p-cresol)	ND	ND	ND	ND	ND	ND	ND	500	0.33
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	NA	NA
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	NA	NA
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Chloroaniline	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	NA	NA
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	NA	NA
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	500	20
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	500	100
Acetophenone	ND	ND	ND	ND	ND	ND	ND	NA	NA
Aniline	ND	ND	ND	ND	ND	ND	ND	NA	NA
Anthracene	ND	ND	ND	ND	ND	ND	ND	500	100
Azobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Benzo(a)anthracene	ND	ND	ND	ND	ND	0.830	ND	5.6	1
Benzidine	ND	ND	ND	ND	ND	ND	ND	NA	NA
Benzo(a)pyrene	ND	ND	ND	ND	ND	0.730	ND	1	1
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	1.000	ND	5.6	1
Benzo(ghi)perylene	ND	ND	ND	ND	ND	0.290	ND	500	100
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	0.330	ND	56	0.8
Benzoic acid	ND	ND	ND	ND	ND	ND	ND	NA	NA
Benzyl butyl phthalate	0.370	ND	ND	0.310	ND	0.460	ND	NA	NA
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bis(2-chloroethyl)ether	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bis(2-chloroisopropyl)ether	ND	ND	ND	ND	ND	ND	ND	NA	NA
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	ND	ND	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	ND	NA	NA
Chrysene	ND	ND	ND	ND	ND	0.750	ND	56	1
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	0.56	0.33
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	NA	NA
Diethyl phthalate	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	NA	NA
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND	ND	NA	NA
Di-n-octylphthalate	ND	ND	ND	ND	ND	ND	ND	NA	NA
Fluoranthene	0.280	ND	ND	0.440	ND	1.700	ND	500	100
Fluorene	ND	ND	ND	ND	ND	ND	ND	500	30
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	0.270	ND	5.6	0.5
Isophorone	ND	ND	ND	ND	ND	ND	ND	NA	NA
Naphthalene	ND	ND	ND	ND	ND	ND	ND	100	12
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
N-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	ND	NA	NA
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	ND	NA	NA
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	NA	NA
Pentachloronitrobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	6.7	0.8
Phenanthrene	ND	ND	ND	ND	ND	1.100	ND	500	100
Phenol	ND	ND	ND	ND	ND	ND	ND	500	0.33
Pyrene	0.260	ND	ND	0.390	ND	1.300	ND	500	100
Pyridine	ND	ND	ND	ND	ND	ND	ND	NA	NA

Notes:

1. NA = Not Available / Not Applicable
2. NS = Not Sampled
3. NYSDEC = New York State Department of Environmental Conservation
4. ppm = parts per million (mg/Kg)
5. SVOCs = Semi Volatile Organic Compounds
6. ND = Not Detected above the method detection limit of the laboratory.
7. RCUSCO = Restricted Commercial Use Soil Cleanup Objectives
8. UUSCO = Unrestricted Use Soil Cleanup Objectives

= Concentration exceeds the Part 375 RRUSCO

EnviroTrac

Table 4

Metals Concentrations in Soil
876 Livonia Ave

Analytical Parameter	B-1 0-2' (2/28/12)	B-1 Dup 0-2' (2/28/12)	B-1 6-8' (2/28/12)	B-2 0-2' (2/28/12)	B-2 6-8' (2/28/12)	B-3 0-2" (2/28/12)	B-3 6-8' (2/28/12)	NYSDEC Part 375 RCUSCO	NYSDEC Part 375 UUSCO
Metals (ppm)									
Aluminum	3170	1,710	3,050	2,840	2,580	3,750	3,210	NA	NA
Antimony	<3.4	<3.3	<3.3	<3.6	<3.3	<3.2	<3.6	NA	NA
Arsenic	0.7	<0.67	<0.66	0.97	<0.66	0.69	<0.72	16	13
Barium	40	29	22	43.2	20	78.5	127	400	350
Beryllium	<0.27	<0.27	<0.26	<0.29	<0.27	<0.26	<0.29	590	7.2
Calcium	18,400	3,240	1,870	8,570	2,550	12,200	4,440	NA	NA
Cadmium	<0.34	<0.33	<0.33	<0.36	<0.33	<0.32	<0.36	9	2.5
Chromium	8.97	4.63	5.48	8.14	6.02	8.18	8.71	1,500	30
Cobalt	2.16	1.25	1.48	1.63	1.23	2.22	1.89	NA	NA
Copper	9.61	5.24	12.4	10.5	10.4	20	10.9	270	50
Iron	7,120	4,390	6,150	7,340	7,510	8210	7,730	NA	NA
Lead	51.1	19.2	27.8	35.4	32.2	54	34.9	1,000	63
Magnesium	4,830	906	906	1,220	807	1,710	1,030	NA	NA
Manganese	115	69.3	79.2	102	69.1	164	95.3	10,000	1600
Mercury	<0.06	<0.06	<0.06	<0.07	<0.08	<0.08	<0.09	3	0.18
Nickel	6.61	3.5	4.61	5.39	3.83	7.41	5.41	310	30
Potassium	500	254	252	447	201	327	195	NA	NA
Selenium	<1.3	<1.3	<1.3	<1.4	<1.3	<1.3	<1.4	1,500	3.9
Silver	<0.34	<0.33	<0.33	<0.36	<0.33	0.32	<0.36	1,500	2
Sodium	70.7	28	31.4	46.6	44.9	65.2	30.4	NA	NA
Thallium	<3.0	<3.0	<3.0	<3.2	<3.0	<2.9	<3.2	NA	NA
Vanadium	13.6	7.36	95	9.92	11.7	11.9	11.1	NA	NA
Zinc	38.8	22.5	30.5	57.6	48.3	*161*	*137*	10,000	109

Notes:

1. NA = Not Available / Not Applicable
2. NS = Not Sampled
3. NYSDEC = New York State Department of Environmental Conservation
4. ppm = parts per million (mg/Kg)
5. Metals = Target Analyte Metals (TAL)
6. ND = Not Detected above the method detection limit of the laboratory.
7. RCUSCO = Restricted Commercial Use Soil Cleanup Objectives
8. UUSCO = Unrestricted Use Soil Cleanup Objectives

Italicized values exceed the Part 375 UUSCOs

= Concentration exceeds the Part 375 RUCSCO

EnviroTrac Environmental Services

Table 5

Pesticide Concentrations in Soil
876 Livonia Avenue

Analytical Parameter	B-1 0-2' 2/28/12	B-1 Dup 0-2' 2/28/12	B-1 6-8' 2/28/12	B-2 0-2' 2/28/12	B-2 6-8' 2/28/12	B 3 0-2' 2/28/12	B-3 6-8' 2/28/12	NYSDEC Part 375 RCUSCO	NYSDEC Part 375 UUSCO
Pesticides (ppm)									
4,4'-DDD	ND	ND	0.12	ND	ND	ND	ND	92	**0.0033**
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	62	**0.0033**
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	47	**0.0033**
a-BHC	ND	ND	ND	ND	ND	ND	ND	3.4	**0.02**
Alachlor	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
Aldrin	ND	ND	ND	ND	ND	ND	ND	0.68	**0.005**
b-BHC	ND	ND	ND	ND	ND	ND	ND	3	**0.036**
Chlordane	0.071	ND	ND	0.071	ND	0.074	ND	24	**0.094**
d-BHC	ND	ND	ND	ND	ND	ND	ND	3	**0.04**
Dieldrin	ND	ND	*0.041*	ND	ND	ND	ND	1.4	**0.005**
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	200	**2.4**
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	200	**2.4**
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	200	**2.4**
Endrin	ND	ND	ND	ND	ND	ND	ND	89	0.014
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
g-BHC	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
Heptachlor	ND	ND	ND	ND	ND	ND	ND	15	**0.042**
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
Methyloxychlor	ND	ND	ND	ND	ND	ND	ND	NA	**NA**
Toxaphene	ND	ND	ND	ND	ND	ND	ND	NA	**NA**

Notes:

1. NA = Not Available / Not Applicable
2. NS = Not Sampled
3. NYSDEC = New York State Department of Environmental Conservation
4. ppm = parts per million (mg/Kg)
5. ND = Not Detected above the method detection limit of the laboratory.
6. RCUSCO = Restricted Commercial Use Soil Cleanup Objectives
7. UUSCO = Unrestricted Use Soil Cleanup Objectives

Italicized values exceed the Part 375 UUSCOs

= Concentration exceeds the Part 375 RCUSCO

EnviroTrac Environmental Services

Table 6

PCB Concentrations in Groundwater

876 Livonia Avenue

Analytical Parameter	MW-1 2/28/12	NYSDEC Groundwater Quality Standards/Values (GA)
PCBs (µg/L)		
PCB-1016	ND	**NA**
PCB-1221	ND	**NA**
PCB-1232	ND	**NA**
PCB-1242	ND	**NA**
PCB-1248	ND	**NA**
PCB-1254	ND	**NA**
PCB-1260	ND	**NA**
PCB-1262	ND	**NA**
PCB-1268	ND	**NA**
Total PCBs	ND	**0.09**

Notes:

1. NYSDEC = New York State Department of Environmental Conservation
2. µg/L = micrograms per liter
3. PCBs = Polychlorinated Biphenyls
4. ND = Not Detected above the method detection limit of the laboratory.

EnviroTrac
Environmental Services

Table 7

VOC Concentrations in Groundwater

876 Livonia Avenue

Analytical Parameter	MW-1 2/28/12	NYSDEC Groundwater Quality Standards/Values (GA)
VOCs (µg/L)		
1,1,1,2-Tetrachloroethane	ND	5
1,1,1-Trichloroethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	1
1,1-Dichloroethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloropropene	ND	5
1,2,3-Trichlorobenzene	ND	5
1,2,3-Trichloropropane	ND	0.04
1,2,4-Trichlorobenzene	ND	5
1,2,4-Trimethylbenzene	ND	5
1,2-Dibromo-3-chloropropane	ND	0.04
1,2-Dichlorobenzene	ND	3
1,2-Dichloroethane	ND	0.6
1,2-Dichloropropane	ND	1
1,3,5-Trimethylbenzene	ND	5
1,3-Dichlorobenzene	ND	3
1,3-Dichloropropane	ND	5
1,4-Dichlorobenzene	ND	3
2,2-Dichloropropane	ND	5
2-Chlorotoluene	ND	5
2-Hexanone	ND	50
2-Isopropyltoluene	ND	5
4-Chlorotoluene	ND	5
4-Methyl-2-pentanone	ND	NA
Acetone	ND	50
Acrylonitrile	ND	5
Benzene	ND	1
Bromobenzene	ND	5
Bromochloromethane	ND	5
Bromodichloromethane	ND	50
Bromoform	ND	50
Bromomethane	ND	5
Carbon Disulfide	ND	60
Carbon tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroethane	ND	5
Chloroform	ND	7
Chloromethane	ND	NA
cis-1,2-Dichloroethene	ND	5
cis-1,3-Dichloropropene	ND	NA
Dibromochloromethane	ND	5
Dibromoethane	ND	NA
Dibromomethane	ND	5
Dichlorodifluoromethane	ND	5
Ethylbenzene	ND	5
Hexachlorobutadiene	ND	0.5
Isopropylbenzene	ND	5
m&p-Xylene	ND	5
Methyl Ethyl Ketone	ND	50
Methyl tert-butyl ether (MTBE)	ND	10
Methylene chloride	ND	5
Naphthalene	ND	10
n-Butylbenzene	ND	5
n-Propylbenzene	ND	5
o-Xylene	ND	5
p-Isopropyltoluene	ND	NA
sec-Butylbenzene	ND	5
Styrene	ND	5
tert-Butylbenzene	ND	5
Tetrachloroethene	1.8	5
Tetrahydrofuran (THF)	ND	50
Toluene	ND	5
Total Xylenes	ND	5
trans-1,2-Dichloroethene	ND	5
trans-1,3-Dichloropropene	ND	0.4
trans-1,4-dichloro-2-butene	ND	5
Trichloroethene	ND	5
Trichlorofluoromethane	ND	5
Trichlorotrifluoroethane	ND	NA
Vinyl chloride	ND	2

Notes:

1. NA = Not Available / Not Applicable
2. NYSDEC = New York State Department of Environmental Conservation
3. µg/L = micrograms per liter
4. VOCs = Volatile Organic Compounds
5. ND = Not Detected above the method detection limit of the laboratory.

Envirotrac

Table 8

SVOC Concentrations in Groundwater

876 Livonia Avenue

Analytical Parameter	MW-1 2/28/2012	NYSDEC Groundwater Quality Standards/Values (GA)
SVOCs (µg/L)		
1,2,4-Trichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	3
1,3-Dichlorobenzene	ND	3
1,4-Dichlorobenzene	ND	3
2,4,5-Trichlorophenol	ND	NA
2,4,6-Trichlorophenol	ND	NA
2,4-Dichlorophenol	ND	5
2,4-Dimethylphenol	ND	50
2,4-Dinitrophenol	ND	10
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
2-Chloronaphthalene	ND	10
2-Chlorophenol	ND	NA
2-Methylnaphthalene	ND	NA
2-Methylphenol (o-cresol)	ND	NA
2-Nitroaniline	ND	5
2-Nitrophenol	ND	NA
3&4-Methylphenol (m&p-cresol)	ND	NA
3,3'-Dichlorobenzidine	ND	5
3-Nitroaniline	ND	5
4,6-Dinitro-2-methylphenol	ND	NA
4-Bromophenyl phenyl ether	ND	NA
4-Chloro-3-methylphenol	ND	NA
4-Chloroaniline	ND	5
4-Chlorophenyl phenyl ether	ND	NA
4-Nitroaniline	ND	5
4-Nitrophenol	ND	NA
Acenaphthene	ND	20
Acenaphthylene	ND	NA
Acetophenone	ND	NA
Aniline	ND	5
Anthracene	ND	50
Azobenzene	ND	5
Benzo(a)anthracene	ND	0.002
Benzidine	ND	5
Benzo(a)pyrene	ND	0
Benzo(b)fluoranthene	ND	0.002
Benzo(ghi)perylene	ND	NA
Benzo(k)fluoranthene	ND	0.002
Benzoic acid	ND	NA
Benzyl butyl phthalate	ND	NA
Bis(2-chloroethoxy)methane	ND	5
Bis(2-chloroethyl)ether	ND	1
Bis(2-chloroisopropyl)ether	ND	NA
Bis(2-ethylhexyl)phthalate	ND	5
Carbazole	ND	NA
Chrysene	ND	0.002
Dibenzo(a,h)anthracene	ND	NA
Dibenzofuran	ND	NA
Diethyl phthalate	ND	50
Dimethylphthalate	ND	50
Di-n-butylphthalate	ND	NA
Di-n-octylphthalate	ND	50
Fluoranthene	ND	50
Fluorene	ND	50
Hexachlorobenzene	ND	0.04
Hexachlorobutadiene	ND	0.5
Hexachlorocyclopentadiene	ND	5
Hexachloroethane	ND	5
Indeno(1,2,3-cd)pyrene	ND	0.002
Isophorone	ND	50
Naphthalene	ND	10
Nitrobenzene	ND	0.4
N-Nitrosodimethylamine	ND	NA
N-Nitrosodi-n-propylamine	ND	NA
N-Nitrosodiphenylamine	ND	50
Pentachloronitrobenzene	ND	ND
Pentachlorophenol	ND	1
Phenanthrene	ND	50
Phenol	ND	1
Pyrene	ND	50
Pyridine	ND	50

Notes:

1. NA = Not Available / Not Applicable
2. NYSDEC = New York State Department of Environmental Conservation
3. µg/L = micrograms per liter
4. SVOCs = Semi Volatile Organic Compounds
5. ND = Not Detected above the method detection limit of the laboratory.

Envirotrac Environmental Services

Table 9

Metals Concentrations in Groundwater

876 Livonia Avenue

Analytical Parameter	MW-1 2/28/2012	NYSDEC Groundwater Quality Standards/Values (GA)
Metals (µg/L)		
Aluminum (Dissolved)	570	**NA**
Antimony (Dissolved)	<5	**3**
Arsenic (Dissolved)	<4	**25**
Barium (Dissolved)	72	**1,000**
Beryllium (Dissolved)	<1	**3**
Calcium (Dissolved)	112,000	**NA**
Cadmium (Dissolved)	<1	**5**
Chromium (Dissolved)	<1	**50**
Cobalt (Dissolved)	13	**NA**
Copper (Dissolved)	<5	**200**
Total Cyanide	10	**200**
Iron (Dissolved)	105	**300**
Lead (Dissolved)	<2	**25**
Magnesium (Dissolved)	9,720	**35,000**
Manganese (Dissolved)	2,760	**300**
Mercury (Dissolved)	<0.2	**0.7**
Nickel (Dissolved)	18	**100**
Potassium (Dissolved)	13,700	**NA**
Selenium (Dissolved)	23	**10**
Silver (Dissolved)	<1	**50**
Sodium (Dissolved)	95,900	**20,000**
Thallium (Dissolved)	<2	**0.5**
Vanadium (Dissolved)	2	**NA**
Zinc (Dissolved)	8	**2,000**

Notes:

1. NA = Not Available / Not Applicable
2. NYSDEC = New York State Department of Environmental Conservation
3. µg/L = micrograms per liter
4. Metals = Target Analyte Metals (TAL)
6. ND = Not Detected above the method detection limit of the laboratory.
7. Highlighed cells indicate detections above limitations.

EnviroTrac
Environmental Services

Table 10

Pesticide Concentrations in Groundwater

876 Livonia Avenue

Analytical Parameter	MW-1 2/28/2012	NYSDEC Groundwater Quality Standards/Values (GA)
Pesticides (µg/L)		
4,4'-DDD	ND	**0.3**
4,4'-DDE	ND	**0.2**
4,4'-DDT	ND	**0.2**
a-BHC	ND	**NA**
Alachlor	ND	**0.5**
Aldrin	ND	**0**
b-BHC	ND	**NA**
Chlordane	ND	**0.05**
d-BHC	ND	**NA**
Dieldrin	ND	**0.004**
Endosulfan I	ND	**NA**
Endosulfan II	ND	**NA**
Endosulfan sulfate	ND	**NA**
Endrin	ND	**0**
Endrin aldehyde	ND	**5**
Endrin ketone	ND	**5**
g-BHC	ND	**NA**
Heptachlor	ND	**0.04**
Heptachlor epoxide	ND	**0.03**
Methyloxychlor	ND	**NA**
Toxaphene	ND	**0.06**

Notes:

1. NA = Not Available / Not Applicable
2. NYSDEC = New York State Department of Environmental Conservation
3. µg/L = micrograms per liter
4. Metals = Target Analyte Metals (TAL)
5. ND = Not Detected above the method detection limit of the laboratory.

EnviroTrac
Environmental Services

Table 11

VOC Concentrations in Soil Vapor

876 Livonia Avenue

Analytical Parameter	VP-1	VP-2	VP-3	Matrices 1 and 2 Recommendation	Ambient Air Guideline NYSDOH
VOCs TO-15 (µg/m³)					
1,1,1,2-Tetrachloroethane	ND	ND	ND	-	-
1,1,1-Trichloroethane	ND	ND	ND	No Further Action	-
1,1,2,2-Tetrachloroethane	ND	ND	ND	-	-
1,1,2-Trichloroethane	ND	ND	ND	-	-
1,1-Dichloroethane	ND	ND	ND	-	-
1,1-Dichloroethene	ND	ND	ND	-	-
1,2,4-Trichlorobenzene	ND	ND	ND	-	-
1,2,4-Trimethylbenzene	5.01	3.1	13.6	-	-
1,2-Dibromoethane (EDB)	ND	ND	ND	-	-
1,2-Dichlorobenzene	ND	ND	ND	-	-
1,2-Dichloroethane	ND	2.1	ND	-	-
1,2-Dichloropropane	ND	ND	ND	-	-
1,2-Dichlorotetrafluoroethane	ND	ND	ND	-	-
1,3,5-Trimethylbenzene	1.62	1.38	3.4	-	-
1,3-Butadiene	ND	ND	ND	-	-
1,3-Dichlorobenzene	ND	ND	ND	-	-
1,4-Dichlorobenzene	ND	ND	ND	-	-
1,4-Dioxane	ND	ND	ND	-	-
2-Hexanone	8.06	ND	8.43	-	-
4-Ethyltoluene	1.87	2.16	3.1	-	-
4-Isopropyltoluene	1.92	2.85	ND	-	-
4-Methyl-2-pentanone	ND	ND	ND	-	-
Acetone	85.9	230	75	-	-
Acrylonitrile	ND	ND	ND	-	-
Benzene	1.88	3.51	1.37	-	-
Benzyl chloride	ND	ND	ND	-	-
Bromodichloromethane	ND	ND	ND	-	-
Bromoform	ND	1.24	ND	-	-
Bromomethane	ND	ND	ND	-	-
Carbon Disulfide	ND	2.18	ND	-	-
Carbon Tetrachloride	0.314	0.314	0.25	No Further Action	-
Chlorobenzene	ND	ND	ND	-	-
Chloroethane	ND	ND	ND	-	-
Chloroform	ND	ND	ND	-	-
Chloromethane	ND	1.18	ND	-	-
cis-1,2-Dichloroethene	ND	ND	ND	-	-
cis-1,3-Dichloropropene	ND	ND	ND	-	-
Cyclohexane	1.2	3.34	ND	-	-
Dibromochloromethane	ND	ND	ND	-	-
Dichlorodifluoromethane	2.67	2.72	2.77	-	-
Ethanol	12.7	18.1	13.6	-	-
Ethyl acetate	ND	ND	ND	-	-
Ethylbenzene	6.7	10.9	6.25	-	-
Heptane	3.52	11.6	7.04	-	-
Hexachlorobutadiene	ND	ND	ND	-	-
Hexane	4.19	13.2	13.4	-	-
Isopropylalcohol	ND	ND	ND	-	-
Isopropylbenzene	ND	ND	ND	-	-
m,p-Xylene	19.5	25.8	22.7	-	-
Methyl Ethyl Ketone	120	167	110	-	-
Methyl tert-butyl ether	ND	12.7	ND	-	-
Methylene Chloride	1.14	1.46	ND	-	-
n-Butylbenzene	ND	ND	1.54	-	-
o-Xylene	7.9	10.6	9.33	-	-
Propylene	ND	ND	ND	-	-
sec-Butylbenzene	ND	ND	ND	-	-
Styrene	5.83	15.1	1.4	-	-
Tetrachloroethene	117	56.4	102	Monitor	100
Tetrahydrofuran	ND	ND	ND	-	-
Toluene	17.4	31.1	ND	-	-
trans-1,2-Dichloroethene	ND	ND	ND	-	-
trans-1,3-Dichloropropene	ND	ND	ND	-	-
Trichloroethene	1.4	0.644	0.483	No Further Action	5
Trichlorofluoromethane	3.87	3.93	3.14	-	-
Trichlorotrifluoroethane	ND	ND	ND	-	-
Vinyl Chloride	ND	ND	ND	-	-

Notes:
1. Ambient Air Guideline values derived by NYSDOH, Table 3.1 in Final NYSDOH CEH BEEI SOIL VAPOR INTRUSION GUIDANCE
2. Matrix 1 and 2 taken from Section 3.4 of NYSDOH Vapor Intrustion Guidance
3. ND = Not detected above the method detection limits of the laboratory.
4. - = Value not provided in NYSDOH Guidance
5. µg/m³ = micrograms per cubic meter

Environtrac Environmental Services

Appendix A

Soil Boring Logs

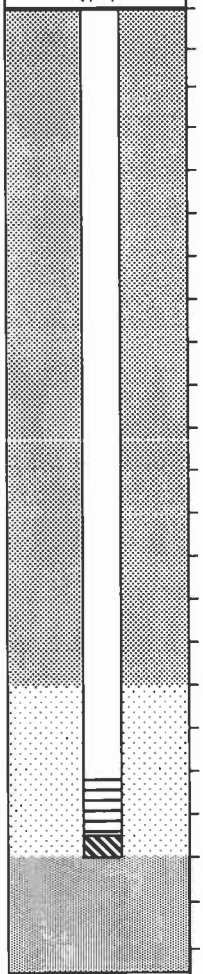
Soil Vapor Point Construction Details

Log of Vapor Point (VP)-1

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		DTW (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately
Site Name:	Address:	NA	20 feet amsl
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		
Associated Environmental Svcs.	Geoprobe®		Measuring Point Elevation
Date Started:	Date Completed:		NA
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
5'	Dave Lorthioir		

SOIL VAPOR POINT CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
VP-1	0	NA	NA	NA	NA



LEGEND:

- Grout
- Gravel pack
- Presumed native
- Screen
- End Cap

Well Construction Details:

Bottom of Well:	5'
Screen Zone:	4.5'-5'
Screen material:	6", steel, vapor screen
Casing material:	0.375" poly tubing
Sand Pack:	#2 well gravel from 4'-5'
Seal:	Grouted from 0-4'

Soil Vapor Point Construction Details

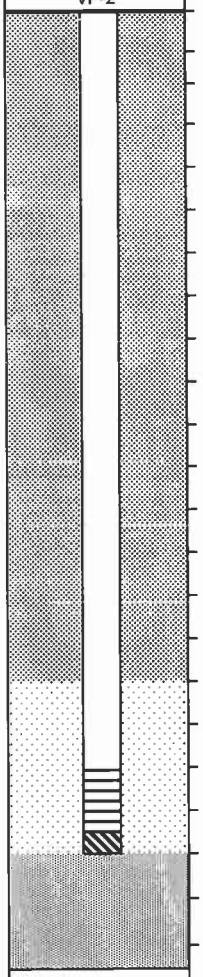
Log of Vapor Point (VP)-2

EnviroTrac Ltd.

5 Old Dock Road, Yaphank, NY, 11980

Client:		DTW (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately 20 feet amsl
Site Name:	Address:	NA	
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		Measuring Point Elevation
Associated Environmental Svcs.	Geoprobe®		NA
Date Started:	Date Completed:		
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
5'	Dave Lorthioir		

SOIL VAPOR POINT CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
VP-2	0	NA	NA	NA	NA
	1				
	2				
	3				
	4				
	5				



LEGEND:

- Grout
- Gravel pack
- Presumed native
- Screen
- End Cap

Well Construction Details:

Bottom of Well:	5'
Screen Zone:	4.5'-5'
Screen material:	6", steel, vapor screen
Casing material:	0.375" poly tubing
Sand Pack:	#2 well gravel from 4'-5'
Seal:	Grouted from 0-4'

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

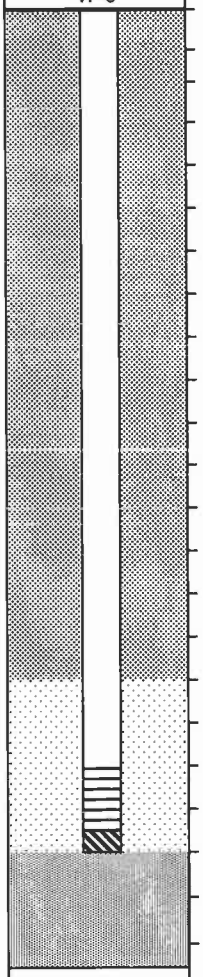
Soil Vapor Point Construction Details

Log of Vapor Point (VP)-3

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		DTW (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo		NA	Approximately 20 feet amsl
Site Name:	Address:		
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		Measuring Point Elevation
Associated Environmental Svcs.	Geoprobe®		NA
Date Started:	Date Completed:		
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
5'	Dave Lorthioir		

SOIL VAPOR POINT CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
VP-3	0	NA	NA	NA	NA
	1				
	2				
	3				
	4				
	5				



LEGEND:

- Grout
- Gravel pack
- Presumed native
- Screen
- End Cap

Well Construction Details:

Bottom of Well:	5'
Screen Zone:	4.5'-5'
Screen material:	6", steel, vapor screen
Casing material:	0.375" poly tubing
Sand Pack:	#2 well gravel from 4'-5'
Seal:	Grouted from 0-4'

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

Soil Boring Details

Log of Soil Boring (B)-1

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		Depth to Water (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately
Site Name:	Address:	NA	20 feet amsl
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		Measuring Point Elevation
Associated Environmental Svcs.	Geoprobe®		NA
Date Started:	Date Completed:		
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
8'	Dave Lorthioir		

	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
SB-1	0		B-01 (0-2')	0	0-5': Fill material consisting of a mixture of sand and demolition debris (pieces of brick and concrete observed). No odor or staining.
	1				
	2				
	3				
	4				
	5			0	5'-8': Fill material consisting of a mixture of sand and demolitions debris (pieces of brick and broken glass observed). No odor or staining.
	6		B-01 (6-8')		
	7				
	8				

LEGEND:

- Fill material
- Presumed native

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

Soil Boring Details

Log of Soil Boring (B)-2

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		Depth to Water (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately 20 feet amsl
Site Name: Vacant Property	Address: 876 Livonia Avenue, Brooklyn, New York	NA	
Drilling Company: Associated Environmental Svcs.	Method: Geoprobe®		Measuring Point Elevation
Date Started: 2/28/2012	Date Completed: 2/28/2012		NA
Completion Depth: 8'	ENVIROTRAC Geologist: Dave Lorthioir		

MONITORING WELL CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
SB-1	0		B-02 (0-2')	0	0-5': Fill material consisting of mostly sand, some pieces of brick. No odor or staining observed.
	1				
	2				
	3				
	4				
	5			0	5'-8': Fill material consisting of mostly sand with some pieces of brick. No odor or staining observed.
	6		B-02 (6-8')		
	7				
	8				

LEGEND:

- Fill material
- Presumed native

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

Soil Boring Details

Log of Soil Boring (SB)-3

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		Depth to Water (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately
Site Name:	Address:	NA	20 feet amsl
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		Measuring Point Elevation
Associated Environmental Svcs.	Geoprobe®		NA
Date Started:	Date Completed:		
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
8'	Dave Lorthioir		

MONITORING WELL CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
SB-1	0		B-03 (0-2')	0	0-5': Fill material consisting of mostly sand with some pieces of brick. No odor or staining.
	1				
	2				
	3				
	4				
	5			0	5-8': Fill material consisting of mostly sand with some pieces of brick, concrete and lumber. No odor or staining observed.
	6		B-03 (6'-8')		
	7				
	8				

LEGEND:

- Fill material
- Presumed native

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

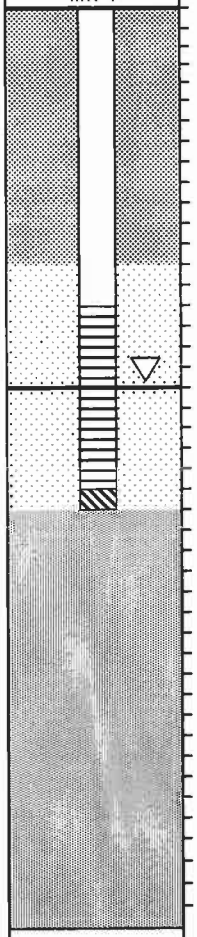
Temporary Groundwater Well Construction Details

Log of Temporary Groundwater Well (MW)-1

EnviroTrac Ltd.
5 Old Dock Road, Yaphank, NY, 11980

Client:		Depth to Water (approximate from borings)	Site Elevation Datum
Mr. Gary Caiozzo			Approximately 20 feet amsl
Site Name:	Address:	19 ft below grade	
Vacant Property	876 Livonia Avenue, Brooklyn, New York		
Drilling Company:	Method:		Measuring Point Elevation
Associated Environmental Svcs.	Geoprobe®		NA
Date Started:	Date Completed:		
2/28/2012	2/28/2012		
Completion Depth:	ENVIROTRAC Geologist:		
24'	Dave Lorthioir		

MONITORING WELL CONSTRUCTION (NTS)	DEPTH (ft below grade)	SAMPLES: Recovery (in.)	SAMPLES: Sample ID	SAMPLES: OVM (ppm)	SOIL DESCRIPTION
MW-1	0				
	5				
	10				
	15				
	20				
	25				



LEGEND:

- Void
- Gravel pack
- Presumed native
- Screen
- End Cap

Well Construction Details:

Bottom of Well:	25'
Screen Zone:	15'-25'
Screen material:	# 20 slot, 1", schedule 40 PVC
Casing material:	1" schedule 40 PVC
Sand Pack:	#2 well gravel from 13'-25'

NTS - Not to Scale ND - Not Detected NA - Not Applicable DTW - Depth to Water

Appendix B

Laboratory Data for Soil

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	10:45
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48559

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	3170	50	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.4	3.4	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	0.70	0.67	mg/Kg	03/01/12		LK	6010/200.7
Barium	40.0	0.34	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.27	0.27	mg/Kg	03/01/12		LK	6010/200.7
Calcium	18400	50	mg/Kg	03/01/12		EK	6010/200.7
Cadmium	< 0.34	0.34	mg/Kg	03/01/12		LK	6010/200.7
Chromium	8.97	0.34	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	2.16	0.34	mg/Kg	03/01/12		LK	6010/200.7
Copper	9.61	0.34	mg/kg	03/01/12		LK	6010/200.7
Iron	7120	5.0	mg/Kg	03/01/12		LK	6010/200.7
Lead	51.1	0.34	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	4830	5.0	mg/Kg	03/01/12		LK	6010/200.7
Manganese	115	0.34	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.06	0.06	mg/Kg	03/01/12		RS	SW-7471
Nickel	6.61	0.34	mg/Kg	03/01/12		LK	6010/200.7
Potassium	500	5.0	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.3	1.3	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.34	0.34	mg/Kg	03/01/12		LK	6010/200.7
Sodium	70.7	5.0	mg/Kg	03/01/12		EK	6010/200.7
Thallium	< 3.0	3.0	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	13.6	0.34	mg/Kg	03/01/12		LK	6010/200.7
Zinc	38.8	0.34	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	94		%	02/29/12		JL	E160.3
Total Cyanide	< 0.53	0.53	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Phoenix I.D.: BB48559

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	350	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	77		%	03/01/12		MH	30 - 150 %
% TCMX	94		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	33	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	17	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Chlordane	71	52	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	17	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	33	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	33	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	17	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	170	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	170	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	89		%	03/01/12		MR	30 - 150 %
% TCMX	90		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Phoenix I.D.: BB48559

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
2-Hexanone	ND	27	ug/Kg	03/03/12		R/J	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
4-Methyl-2-pentanone	ND	27	ug/Kg	03/03/12		R/J	SW8260
Acetone	ND	27	ug/Kg	03/03/12		R/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/03/12		R/J	SW8260
Benzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Bromobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Bromochloromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Bromoform	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Bromomethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Chlorobenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Chloroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Chloroform	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Chloromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Dibromochloromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Dibromoethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Dibromomethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Ethylbenzene	23	5.3	ug/Kg	03/03/12		R/J	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Isopropylbenzene	14	5.3	ug/Kg	03/03/12		R/J	SW8260
m&p-Xylene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/03/12		R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/03/12		R/J	SW8260
Methylene chloride	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Naphthalene	39	5.3	ug/Kg	03/03/12		R/J	SW8260
n-Butylbenzene	5.9	5.3	ug/Kg	03/03/12		R/J	SW8260
n-Propylbenzene	17	5.3	ug/Kg	03/03/12		R/J	SW8260
o-Xylene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Phoenix I.D.: BB48559

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Styrene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/03/12		R/J	SW8260
Toluene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Total Xylenes	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/03/12		R/J	SW8260
Trichloroethene	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
Vinyl chloride	ND	5.3	ug/Kg	03/03/12		R/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	03/03/12		R/J	70 - 130 %
% Bromofluorobenzene	98		%	03/03/12		R/J	70 - 130 %
% Dibromofluoromethane	97		%	03/03/12		R/J	70 - 130 %
% Toluene-d8	98		%	03/03/12		R/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	560	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Phoenix I.D.: BB48559

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	420	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	370	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	530	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	280	250	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	350	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
Pyrene	260	250	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	350	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	82		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	77		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	78		%	03/01/12		DD	15 - 130 %
% Phenol-d5	75		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	84		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2)

Phoenix I.D.: BB48559

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	11:10
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48560

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	1710	5.0	mg/Kg	03/01/12		LK	6010/200.7
Antimony	< 3.3	3.3	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	< 0.67	0.67	mg/Kg	03/01/12		LK	6010/200.7
Barium	29.0	0.33	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.27	0.27	mg/Kg	03/01/12		LK	6010/200.7
Calcium	3240	5.0	mg/Kg	03/01/12		LK	6010/200.7
Cadmium	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Chromium	4.63	0.33	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	1.25	0.33	mg/Kg	03/01/12		LK	6010/200.7
Copper	5.24	0.33	mg/kg	03/01/12		LK	6010/200.7
Iron	4390	5.0	mg/Kg	03/01/12		LK	6010/200.7
Lead	19.2	0.33	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	906	5.0	mg/Kg	03/01/12		LK	6010/200.7
Manganese	69.3	0.33	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.06	0.06	mg/Kg	03/01/12		RS	SW-7471
Nickel	3.50	0.33	mg/Kg	03/01/12		LK	6010/200.7
Potassium	254	5.0	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.3	1.3	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Sodium	28.0	5.0	mg/Kg	03/01/12		EK	6010/200.7
Thallium	< 3.0	3.0	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	7.36	0.33	mg/Kg	03/01/12		LK	6010/200.7
Zinc	22.5	0.33	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	96		%	02/29/12		JL	E160.3
Total Cyanide	< 0.52	0.52	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Phoenix I.D.: BB48560

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	340	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	80		%	03/01/12		MH	30 - 150 %
% TCMX	101		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	32	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	32	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	32	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	16	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.1	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Chlordane	ND	51	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.1	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	16	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	32	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	32	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	32	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	32	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	32	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.1	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	16	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	160	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	160	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	96		%	03/01/12		MR	30 - 150 %
% TCMX	97		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1,1-Trichloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1,2-Trichloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloroethene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloropropene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Phoenix I.D.: BB48560

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2,3-Trichloropropane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichloropropane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,3-Dichlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,3-Dichloropropane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
1,4-Dichlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
2,2-Dichloropropane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
2-Chlorotoluene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/02/12		R/J	SW8260
2-Isopropyltoluene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
4-Chlorotoluene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Acetone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Acrylonitrile	ND	10	ug/Kg	03/02/12		R/J	SW8260
Benzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Bromobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Bromochloromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Bromodichloromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Bromoform	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Bromomethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Carbon Disulfide	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Carbon tetrachloride	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Chlorobenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Chloroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Chloroform	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Chloromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Dibromochloromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Dibromoethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Dibromomethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Dichlorodifluoromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Ethylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Hexachlorobutadiene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Isopropylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
m&p-Xylene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Methyl Ethyl Ketone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/02/12		R/J	SW8260
Methylene chloride	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Naphthalene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
n-Butylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
n-Propylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
o-Xylene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
p-Isopropyltoluene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Phoenix I.D.: BB48560

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Styrene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
tert-Butylbenzene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Tetrachloroethene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/02/12		R/J	SW8260
Toluene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Total Xylenes	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/02/12		R/J	SW8260
Trichloroethene	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Trichlorofluoromethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Trichlorotrifluoroethane	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
Vinyl chloride	ND	5.2	ug/Kg	03/02/12		R/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	03/02/12		R/J	70 - 130 %
% Bromofluorobenzene	92		%	03/02/12		R/J	70 - 130 %
% Dibromofluoromethane	101		%	03/02/12		R/J	70 - 130 %
% Toluene-d8	98		%	03/02/12		R/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	550	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	240	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	240	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Phoenix I.D.: BB48560

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	990	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	410	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	990	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	510	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	240	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	340	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	340	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	81		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	75		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	75		%	03/01/12		DD	15 - 130 %
% Phenol-d5	73		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	72		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-1 (0-2) DUP

Phoenix I.D.: BB48560

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report
March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	11:00
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48561

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	3050	49	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.3	3.3	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	< 0.66	0.66	mg/Kg	03/01/12		LK	6010/200.7
Barium	22.0	0.33	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.26	0.26	mg/Kg	03/01/12		LK	6010/200.7
Calcium	1870	4.9	mg/Kg	03/01/12		LK	6010/200.7
Cadmium	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Chromium	5.48	0.33	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	1.48	0.33	mg/Kg	03/01/12		LK	6010/200.7
Copper	12.4	0.33	mg/kg	03/01/12		LK	6010/200.7
Iron	6150	4.9	mg/Kg	03/01/12		LK	6010/200.7
Lead	27.8	0.33	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	906	4.9	mg/Kg	03/01/12		LK	6010/200.7
Manganese	79.2	0.33	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.06	0.06	mg/Kg	03/01/12		RS	SW-7471
Nickel	4.61	0.33	mg/Kg	03/01/12		LK	6010/200.7
Potassium	252	4.9	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.3	1.3	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Sodium	31.4	4.9	mg/Kg	03/01/12		EK	6010/200.7
Thallium	< 3.0	3.0	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	9.65	0.33	mg/Kg	03/01/12		LK	6010/200.7
Zinc	30.5	0.33	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	95		%	02/29/12		JL	E160.3
Total Cyanide	< 0.53	0.53	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Phoenix I.D.: BB48561

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	350	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	80		%	03/01/12		MH	30 - 150 %
% TCMX	99		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	120	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	33	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	17	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Chlordane	ND	52	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Dieldrin	41	5.2	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	17	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	33	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	33	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	17	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	170	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	170	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	92		%	03/01/12		MR	30 - 150 %
% TCMX	89		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Phoenix I.D.: BB48561

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/02/12		H/J	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/02/12		H/J	SW8260
Acetone	ND	26	ug/Kg	03/02/12		H/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/02/12		H/J	SW8260
Benzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromoform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromoethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Ethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Isopropylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
m&p-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Methyl Ethyl Ketone	ND	26	ug/Kg	03/02/12		H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Methylene chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Naphthalene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Propylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
o-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Phoenix I.D.: BB48561

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Styrene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Toluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Total Xylenes	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/02/12		H/J	SW8260
Trichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Vinyl chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	03/02/12		H/J	70 - 130 %
% Bromofluorobenzene	94		%	03/02/12		H/J	70 - 130 %
% Dibromofluoromethane	106		%	03/02/12		H/J	70 - 130 %
% Toluene-d8	99		%	03/02/12		H/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	550	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	240	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	240	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Phoenix I.D.: BB48561

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	990	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	410	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	990	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	510	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	240	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	340	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	340	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	84		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	80		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	78		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	79		%	03/01/12		DD	15 - 130 %
% Phenol-d5	76		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	74		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-1 (6-8)

Phoenix I.D.: BB48561

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	10:15
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48562

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	2840	54	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.6	3.6	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	0.97	0.72	mg/Kg	03/01/12		LK	6010/200.7
Barium	43.2	0.36	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.29	0.29	mg/Kg	03/01/12		LK	6010/200.7
Calcium	8570	5.4	mg/Kg	03/01/12		LK	6010/200.7
Cadmium	< 0.36	0.36	mg/Kg	03/01/12		LK	6010/200.7
Chromium	8.14	0.36	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	1.63	0.36	mg/Kg	03/01/12		LK	6010/200.7
Copper	10.5	0.36	mg/kg	03/01/12		LK	6010/200.7
Iron	7340	5.4	mg/Kg	03/01/12		LK	6010/200.7
Lead	35.4	0.36	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	1220	5.4	mg/Kg	03/01/12		LK	6010/200.7
Manganese	102	0.36	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.07	0.07	mg/Kg	03/01/12		RS	SW-7471
Nickel	5.39	0.36	mg/Kg	03/01/12		LK	6010/200.7
Potassium	447	5.4	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.4	1.4	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.36	0.36	mg/Kg	03/01/12		LK	6010/200.7
Sodium	46.6	5.4	mg/Kg	03/01/12		EK	6010/200.7
Thallium	< 3.2	3.2	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	9.92	0.36	mg/Kg	03/01/12		LK	6010/200.7
Zinc	57.6	0.36	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	95		%	02/29/12		JL	E160.3
Total Cyanide	< 0.53	0.53	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Phoenix I.D.: BB48562

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	340	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	79		%	03/01/12		MH	30 - 150 %
% TCMX	94		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	33	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	16	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Chlordane	71	52	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	16	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	33	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	33	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	16	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	160	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	160	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	89		%	03/01/12		MR	30 - 150 %
% TCMX	89		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Phoenix I.D.: BB48562

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/02/12		R/J	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Acetone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/02/12		R/J	SW8260
Benzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Bromobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Bromochloromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Bromoform	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Bromomethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Chlorobenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Chloroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Chloroform	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Chloromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Dibromochloromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Dibromoethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Dibromomethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Ethylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Isopropylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
m&p-Xylene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Methyl Ethyl Ketone	ND	26	ug/Kg	03/02/12		R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/02/12		R/J	SW8260
Methylene chloride	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Naphthalene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
n-Butylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
n-Propylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
o-Xylene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Phoenix I.D.: BB48562

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Styrene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/02/12		R/J	SW8260
Toluene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Total Xylenes	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/02/12		R/J	SW8260
Trichloroethene	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
Vinyl chloride	ND	5.3	ug/Kg	03/02/12		R/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	03/02/12		R/J	70 - 130 %
% Bromofluorobenzene	90		%	03/02/12		R/J	70 - 130 %
% Dibromofluoromethane	82		%	03/02/12		R/J	70 - 130 %
% Toluene-d8	93		%	03/02/12		R/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	550	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	240	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	550	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	990	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	240	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Phoenix I.D.: BB48562

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	990	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	410	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	990	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	310	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	340	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	510	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	240	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	440	240	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	340	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	340	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyrene	390	240	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	340	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	71		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	73		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	66		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	67		%	03/01/12		DD	15 - 130 %
% Phenol-d5	65		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	90		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-2 (0-2)

Phoenix I.D.: BB48562

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH
nelac
NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	10:30
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48563

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	2580	50	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.3	3.3	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	< 0.66	0.66	mg/Kg	03/01/12		LK	6010/200.7
Barium	20.0	0.33	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.27	0.27	mg/Kg	03/01/12		LK	6010/200.7
Calcium	2550	5.0	mg/Kg	03/01/12		LK	6010/200.7
Cadmium	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Chromium	6.02	0.33	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	1.23	0.33	mg/Kg	03/01/12		LK	6010/200.7
Copper	10.4	0.33	mg/kg	03/01/12		EK	6010/200.7
Iron	7510	5.0	mg/Kg	03/01/12		LK	6010/200.7
Lead	32.2	0.33	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	807	5.0	mg/Kg	03/01/12		LK	6010/200.7
Manganese	69.1	0.33	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.08	0.08	mg/Kg	03/01/12		RS	SW-7471
Nickel	3.83	0.33	mg/Kg	03/01/12		LK	6010/200.7
Potassium	201	5.0	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.3	1.3	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.33	0.33	mg/Kg	03/01/12		LK	6010/200.7
Sodium	44.9	5.0	mg/Kg	03/01/12		LK	6010/200.7
Thallium	< 3.0	3.0	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	11.7	0.33	mg/Kg	03/01/12		LK	6010/200.7
Zinc	48.3	0.33	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	94		%	02/29/12		JL	E160.3
Total Cyanide	< 0.53	0.53	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Phoenix I.D.: BB48563

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	350	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	78		%	03/01/12		MH	30 - 150 %
% TCMX	86		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	34	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	34	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	34	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	17	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.3	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Chlordane	ND	53	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.3	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	17	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	34	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	34	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.3	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	17	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	170	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	170	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	84		%	03/01/12		MR	30 - 150 %
% TCMX	84		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Phoenix I.D.: BB48563

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Hexanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Methyl-2-pentanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acetone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/02/12		H/J	SW8260
Benzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromoform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromoethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Ethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Isopropylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
m&p-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Methylene chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Naphthalene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Propylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
o-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Phoenix I.D.: BB48563

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Styrene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Toluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Total Xylenes	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/02/12		H/J	SW8260
Trichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Vinyl chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	03/02/12		H/J	70 - 130 %
% Bromofluorobenzene	83		%	03/02/12		H/J	70 - 130 %
% Dibromofluoromethane	110		%	03/02/12		H/J	70 - 130 %
% Toluene-d8	92		%	03/02/12		H/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	560	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Phoenix I.D.: BB48563

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	420	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	530	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	350	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
Pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	350	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	86		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	82		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	81		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	79		%	03/01/12		DD	15 - 130 %
% Phenol-d5	78		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	72		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-2 (6-8)

Phoenix I.D.: BB48563

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	9:45
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48564

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	3750	48	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.2	3.2	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	0.69	0.64	mg/Kg	03/01/12		LK	6010/200.7
Barium	78.5	0.32	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.26	0.26	mg/Kg	03/01/12		LK	6010/200.7
Calcium	12200	48	mg/Kg	03/01/12		EK	6010/200.7
Cadmium	< 0.32	0.32	mg/Kg	03/01/12		LK	6010/200.7
Chromium	8.18	0.32	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	2.22	0.32	mg/Kg	03/01/12		LK	6010/200.7
Copper	20.0	0.32	mg/kg	03/01/12		EK	6010/200.7
Iron	8210	4.8	mg/Kg	03/01/12		LK	6010/200.7
Lead	54.3	0.32	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	1710	4.8	mg/Kg	03/01/12		LK	6010/200.7
Manganese	164	0.32	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.08	0.08	mg/Kg	03/01/12		RS	SW-7471
Nickel	7.41	0.32	mg/Kg	03/01/12		LK	6010/200.7
Potassium	327	4.8	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.3	1.3	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.32	0.32	mg/Kg	03/01/12		LK	6010/200.7
Sodium	65.2	4.8	mg/Kg	03/01/12		LK	6010/200.7
Thallium	< 2.9	2.9	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	11.9	0.32	mg/Kg	03/01/12		LK	6010/200.7
Zinc	161	0.32	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	94		%	02/29/12		JL	E160.3
Total Cyanide	< 0.53	0.53	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Phoenix I.D.: BB48564

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	340	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	340	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	80		%	03/01/12		MH	30 - 150 %
% TCMX	94		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	33	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	33	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	16	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Chlordane	74	52	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	16	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	16	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	33	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	33	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	33	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.2	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	10	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	16	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	160	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	160	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	92		%	03/01/12		MR	30 - 150 %
% TCMX	86		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Phoenix I.D.: BB48564

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
2-Hexanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
4-Methyl-2-pentanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acetone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/02/12		H/J	SW8260
Benzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromoform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Bromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chlorobenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloroform	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Chloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromochloromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromoethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dibromomethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Ethylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Isopropylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
m&p-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Methylene chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Naphthalene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
n-Propylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
o-Xylene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Phoenix I.D.: BB48564

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Styrene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Toluene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Total Xylenes	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/02/12		H/J	SW8260
Trichloroethene	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
Vinyl chloride	ND	5.3	ug/Kg	03/02/12		H/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	102		%	03/02/12		H/J	70 - 130 %
% Bromofluorobenzene	95		%	03/02/12		H/J	70 - 130 %
% Dibromofluoromethane	106		%	03/02/12		H/J	70 - 130 %
% Toluene-d8	99		%	03/02/12		H/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	560	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	240	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	240	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	240	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Phoenix I.D.: BB48564

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	830	240	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	420	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	730	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	1000	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	290	240	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	330	240	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	460	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	520	ug/Kg	03/01/12		DD	SW 8270
Chrysene	750	240	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	240	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	240	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	1700	240	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	240	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	270	240	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	240	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	240	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	350	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	1100	240	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	240	ug/Kg	03/01/12		DD	SW 8270
Pyrene	1300	240	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	350	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	87		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	82		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	79		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	77		%	03/01/12		DD	15 - 130 %
% Phenol-d5	76		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	70		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-3 (0-2)

Phoenix I.D.: BB48564

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	DL	02/28/12	10:00
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48565

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum	3210	54	mg/Kg	03/01/12		EK	6010/200.7
Antimony	< 3.6	3.6	mg/Kg	03/01/12		LK	6010/200.7
Arsenic	< 0.72	0.72	mg/Kg	03/01/12		LK	6010/200.7
Barium	127	0.36	mg/Kg	03/01/12		LK	6010/200.7
Beryllium	< 0.29	0.29	mg/Kg	03/01/12		LK	6010/200.7
Calcium	4440	5.4	mg/Kg	03/01/12		LK	6010/200.7
Cadmium	< 0.36	0.36	mg/Kg	03/01/12		LK	6010/200.7
Chromium	8.71	0.36	mg/Kg	03/01/12		LK	6010/200.7
Cobalt	1.89	0.36	mg/Kg	03/01/12		LK	6010/200.7
Copper	10.9	0.36	mg/kg	03/01/12		EK	6010/200.7
Iron	7730	5.4	mg/Kg	03/01/12		LK	6010/200.7
Lead	34.9	0.36	mg/Kg	03/01/12		LK	6010/200.7
Magnesium	1030	5.4	mg/Kg	03/01/12		LK	6010/200.7
Manganese	95.3	0.36	mg/Kg	03/01/12		LK	6010/200.7
Mercury	< 0.09	0.09	mg/Kg	03/01/12		RS	SW-7471
Nickel	5.41	0.36	mg/Kg	03/01/12		LK	6010/200.7
Potassium	195	5.4	mg/Kg	03/01/12		LK	6010/200.7
Selenium	< 1.4	1.4	mg/Kg	03/01/12		LK	6010/200.7
Silver	< 0.36	0.36	mg/Kg	03/01/12		LK	6010/200.7
Sodium	30.4	5.4	mg/Kg	03/01/12		LK	6010/200.7
Thallium	< 3.2	3.2	mg/Kg	03/01/12		LK	6010/200.7
Total Metals Digest	Completed			02/29/12		AG	SW846 - 3050
Vanadium	11.1	0.36	mg/Kg	03/01/12		LK	6010/200.7
Zinc	137	0.36	mg/Kg	03/01/12		LK	6010/200.7
Percent Solid	92		%	02/29/12		JL	E160.3
Total Cyanide	< 0.54	0.54	mg/Kg	03/01/12		O/GD	SW 9010/9012
Soil Extraction for PCB	Completed			02/29/12		BB	SW3545
Soil Extraction for Pesticide	Completed			02/29/12		BB/F	SW3545

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Phoenix I.D.: BB48565

Parameter	Result	RL	Units	Date	Time	By	Reference
Soil Extraction for SVOA	Completed			02/29/12		BS/RF	SW3545
Mercury Digestion	Completed			03/01/12		D	SW7471
Polychlorinated Biphenyls							
PCB-1016	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1221	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1232	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1242	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1248	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1254	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1260	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1262	ND	350	ug/Kg	03/01/12		MH	SW 8082
PCB-1268	ND	350	ug/Kg	03/01/12		MH	SW 8082
QA/QC Surrogates							
% DCBP	74		%	03/01/12		MH	30 - 150 %
% TCMX	84		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	34	ug/Kg	03/01/12		MR	SW8081
4,4' -DDE	ND	34	ug/Kg	03/01/12		MR	SW8081
4,4' -DDT	ND	34	ug/Kg	03/01/12		MR	SW8081
a-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Alachlor	ND	17	ug/Kg	03/01/12		MR	SW8081
Aldrin	ND	5.3	ug/Kg	03/01/12		MR	SW8081
b-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Chlordane	ND	53	ug/Kg	03/01/12		MR	SW8081
d-BHC	ND	17	ug/Kg	03/01/12		MR	SW8081
Dieldrin	ND	5.3	ug/Kg	03/01/12		MR	SW8081
Endosulfan I	ND	17	ug/Kg	03/01/12		MR	SW8081
Endosulfan II	ND	34	ug/Kg	03/01/12		MR	SW8081
Endosulfan sulfate	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin aldehyde	ND	34	ug/Kg	03/01/12		MR	SW8081
Endrin ketone	ND	34	ug/Kg	03/01/12		MR	SW8081
g-BHC	ND	5.3	ug/Kg	03/01/12		MR	SW8081
Heptachlor	ND	11	ug/Kg	03/01/12		MR	SW8081
Heptachlor epoxide	ND	17	ug/Kg	03/01/12		MR	SW8081
Methoxychlor	ND	170	ug/Kg	03/01/12		MR	SW8081
Toxaphene	ND	170	ug/Kg	03/01/12		MR	SW8081
QA/QC Surrogates							
% DCBP	81		%	03/01/12		MR	30 - 150 %
% TCMX	82		%	03/01/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1,1-Trichloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1,2-Trichloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloroethene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,1-Dichloropropene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Phoenix I.D.: BB48565

Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2,3-Trichloropropane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,2-Dichloropropane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,3-Dichloropropane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
1,4-Dichlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
2,2-Dichloropropane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
2-Chlorotoluene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
2-Hexanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
2-Isopropyltoluene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
4-Chlorotoluene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
4-Methyl-2-pentanone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acetone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Acrylonitrile	ND	11	ug/Kg	03/02/12		H/J	SW8260
Benzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Bromobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Bromochloromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Bromodichloromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Bromoform	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Bromomethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Carbon Disulfide	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Carbon tetrachloride	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Chlorobenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Chloroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Chloroform	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Chloromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Dibromochloromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Dibromoethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Dibromomethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Dichlorodifluoromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Ethylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Hexachlorobutadiene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Isopropylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
m&p-Xylene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/02/12		H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Methylene chloride	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Naphthalene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
n-Butylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
n-Propylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
o-Xylene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
p-Isopropyltoluene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Phoenix I.D.: BB48565

Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Styrene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
tert-Butylbenzene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Tetrachloroethene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/02/12		H/J	SW8260
Toluene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Total Xylenes	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/02/12		H/J	SW8260
Trichloroethene	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Trichlorofluoromethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Trichlorotrifluoroethane	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
Vinyl chloride	ND	5.4	ug/Kg	03/02/12		H/J	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	03/02/12		H/J	70 - 130 %
% Bromofluorobenzene	93		%	03/02/12		H/J	70 - 130 %
% Dibromofluoromethane	103		%	03/02/12		H/J	70 - 130 %
% Toluene-d8	97		%	03/02/12		H/J	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrophenol	ND	560	ug/Kg	03/01/12		DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	03/01/12		DD	SW 8270
2-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	03/01/12		DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	03/01/12		DD	SW 8270
3-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
4-Bromophenyl phenyl ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
4-Chloro-3-methylphenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
4-Nitroaniline	ND	560	ug/Kg	03/01/12		DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Acenaphthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	03/01/12		DD	SW 8270

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Phoenix I.D.: BB48565

Parameter	Result	RL	Units	Date	Time	By	Reference
Acetophenone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Aniline	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Azobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzidine	ND	420	ug/Kg	03/01/12		DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	03/01/12		DD	SW 8270
Benzyl butyl phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroethyl)ether	ND	350	ug/Kg	03/01/12		DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	03/01/12		DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Carbazole	ND	530	ug/Kg	03/01/12		DD	SW 8270
Chrysene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	03/01/12		DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	03/01/12		DD	SW 8270
Fluoranthene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Fluorene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	03/01/12		DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Isophorone	ND	250	ug/Kg	03/01/12		DD	SW 8270
Naphthalene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodimethylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	03/01/12		DD	SW 8270
N-Nitrosodiphenylamine	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachloronitrobenzene	ND	350	ug/Kg	03/01/12		DD	SW 8270
Pentachlorophenol	ND	350	ug/Kg	03/01/12		DD	SW 8270
Phenanthrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Phenol	ND	250	ug/Kg	03/01/12		DD	SW 8270
Pyrene	ND	250	ug/Kg	03/01/12		DD	SW 8270
Pyridine	ND	350	ug/Kg	03/01/12		DD	SW 8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	93		%	03/01/12		DD	15 - 130 %
% 2-Fluorobiphenyl	84		%	03/01/12		DD	15 - 130 %
% 2-Fluorophenol	74		%	03/01/12		DD	15 - 130 %
% Nitrobenzene-d5	75		%	03/01/12		DD	15 - 130 %
% Phenol-d5	73		%	03/01/12		DD	15 - 130 %
% Terphenyl-d14	109		%	03/01/12		DD	15 - 130 %

Project ID: 876 LIVONIA AV
Client ID: B-3 (6-8)

Phoenix I.D.: BB48565

Parameter	Result	RL	Units	Date	Time	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

Appendix C

Laboratory Data for Groundwater

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	LIQUID	Collected by:	DL	02/28/12	9:00
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48559
Phoenix ID: BB48566

Project ID: 876 LIVONIA AV
Client ID: MW-1

Parameter	Result	RL	Units	Date	Time	By	Reference
Aluminum (Dissolved)	0.57	0.01	mg/L	03/06/12		EK	6010/200.7
Antimony (Dissolved)	< 0.005	0.005	mg/L	03/06/12		EK	6010/200.7
Arsenic (Dissolved)	< 0.004	0.004	mg/L	03/06/12		EK	6010/200.7
Barium (Dissolved)	0.072	0.002	mg/L	03/06/12		EK	6010/200.7
Beryllium (Dissolved)	< 0.001	0.001	mg/L	03/06/12		EK	6010/200.7
Calcium (Dissolved)	112	0.01	mg/L	03/06/12		EK	6010/200.7
Cadmium (Dissolved)	< 0.001	0.001	mg/L	03/06/12		EK	6010/200.7
Chromium (Dissolved)	< 0.001	0.001	mg/L	03/06/12		EK	6010/200.7
Cobalt (Dissolved)	0.013	0.001	mg/L	03/06/12		EK	6010/200.7
Copper (Dissolved)	< 0.005	0.005	mg/L	03/06/12		EK	6010/200.7
Dissolved Metals Preparation	Completed			02/29/12		AG	SW846-3005
Iron (Dissolved)	1.05	0.011	mg/L	03/06/12		EK	6010/200.7
Lead (Dissolved)	< 0.002	0.002	mg/L	03/06/12		EK	6010/200.7
Magnesium (Dissolved)	9.72	0.01	mg/L	03/06/12		EK	6010/200.7
Manganese (Dissolved)	2.76	0.011	mg/L	03/06/12		EK	6010/200.7
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	03/01/12		RS	7470/E245.1
Nickel (Dissolved)	0.018	0.001	mg/L	03/06/12		EK	6010/200.7
Potassium (Dissolved)	13.7	0.1	mg/L	03/06/12		EK	6010/200.7
Selenium (Dissolved)	0.023	0.011	mg/L	03/06/12		EK	6010/200.7
Silver (Dissolved)	< 0.001	0.001	mg/L	03/06/12		EK	6010/200.7
Sodium (Dissolved)	95.9	1.1	mg/L	03/06/12		EK	6010/200.7
Thallium (Dissolved)	< 0.002	0.002	mg/L	03/02/12		RS	7010/279.2
Vanadium (Dissolved)	0.002	0.002	mg/L	03/06/12		EK	6010/200.7
Zinc (Dissolved)	0.008	0.002	mg/L	03/06/12		EK	6010/200.7
Total Cyanide	< 0.01	0.01	mg/L	03/01/12		O/GD	335.4/9010
Filtration	Completed			02/29/12		AG	0.45um Filter
Dissolved Mercury Digestion	Completed			03/01/12		D	SW7470
PCB Extraction	Completed			02/29/12		BT/T	SW3510C

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Parameter	Result	RL	Units	Date	Time	By	Reference
Extraction for Pest (2 Liter)	Completed			02/29/12		BT	SW3510
Semi-Volatile Extraction	Completed			02/29/12		F/K	SW3520
Polychlorinated Biphenyls							
PCB-1016	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1221	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1232	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1242	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1248	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1254	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1260	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1262	ND	0.10	ug/L	03/01/12		MH	608/ 8082
PCB-1268	ND	0.10	ug/L	03/01/12		MH	608/ 8082
QA/QC Surrogates							
% DCBP	47		%	03/01/12		MH	30 - 150 %
% TCMX	75		%	03/01/12		MH	30 - 150 %
Pesticides							
4,4' -DDD	ND	0.1	ug/L	03/02/12		MR	SW8081
4,4' -DDE	ND	0.1	ug/L	03/02/12		MR	SW8081
4,4' -DDT	ND	0.1	ug/L	03/02/12		MR	SW8081
a-BHC	ND	0.05	ug/L	03/02/12		MR	SW8081
Alachlor	ND	0.1	ug/L	03/02/12		MR	SW8081
Aldrin	ND	0.01	ug/L	03/02/12		MR	SW8081
b-BHC	ND	0.05	ug/L	03/02/12		MR	SW8081
Chlordane	ND	0.3	ug/L	03/02/12		MR	SW8081
d-BHC	ND	0.05	ug/L	03/02/12		MR	SW8081
Dieldrin	ND	0.01	ug/L	03/02/12		MR	SW8081
Endosulfan I	ND	0.1	ug/L	03/02/12		MR	SW8081
Endosulfan II	ND	0.1	ug/L	03/02/12		MR	SW8081
Endosulfan Sulfate	ND	0.1	ug/L	03/02/12		MR	SW8081
Endrin	ND	0.1	ug/L	03/02/12		MR	SW8081
Endrin Aldehyde	ND	0.1	ug/L	03/02/12		MR	SW8081
Endrin ketone	ND	0.1	ug/L	03/02/12		MR	SW8081
g-BHC (Lindane)	ND	0.05	ug/L	03/02/12		MR	SW8081
Heptachlor	ND	0.05	ug/L	03/02/12		MR	SW8081
Heptachlor epoxide	ND	0.05	ug/L	03/02/12		MR	SW8081
Methoxychlor	ND	0.2	ug/L	03/02/12		MR	SW8081
Toxaphene	ND	1.5	ug/L	03/02/12		MR	SW8081
QA/QC Surrogates							
%DCBP (Surrogate Rec)	57		%	03/02/12		MR	30 - 150 %
%TCMX (Surrogate Rec)	75		%	03/02/12		MR	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	03/05/12		H/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	03/05/12		H/T	SW8260

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Parameter	Result	RL	Units	Date	Time	By	Reference
1,2,3-Trichlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	03/05/12		H/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	03/05/12		H/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	03/05/12		H/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	03/05/12		H/T	SW8260
2-Hexanone	ND	5.0	ug/L	03/05/12		H/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	03/05/12		H/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	03/05/12		H/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	03/05/12		H/T	SW8260
Acetone	ND	25	ug/L	03/05/12		H/T	SW8260
Acrylonitrile	ND	5.0	ug/L	03/05/12		H/T	SW8260
Benzene	ND	0.70	ug/L	03/05/12		H/T	SW8260
Bromobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Bromochloromethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	03/05/12		H/T	SW8260
Bromoform	ND	1.0	ug/L	03/05/12		H/T	SW8260
Bromomethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	03/05/12		H/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	03/05/12		H/T	SW8260
Chlorobenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Chloroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Chloroform	ND	1.0	ug/L	03/05/12		H/T	SW8260
Chloromethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	03/05/12		H/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	03/05/12		H/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	03/05/12		H/T	SW8260
Dibromoethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Dibromomethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Ethylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	03/05/12		H/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
m&p-Xylene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	03/05/12		H/T	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	03/05/12		H/T	SW8260
Methylene chloride	ND	1.0	ug/L	03/05/12		H/T	SW8260
Naphthalene	ND	1.0	ug/L	03/05/12		H/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
o-Xylene	ND	1.0	ug/L	03/05/12		H/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	03/05/12		H/T	SW8260

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Parameter	Result	RL	Units	Date	Time	By	Reference
sec-Butylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Styrene	ND	1.0	ug/L	03/05/12		H/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Tetrachloroethene	1.8	1.0	ug/L	03/05/12		H/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	03/05/12		H/T	SW8260
Toluene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Total Xylenes	ND	1.0	ug/L	03/05/12		H/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	03/05/12		H/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	03/05/12		H/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	03/05/12		H/T	SW8260
Trichloroethene	ND	1.0	ug/L	03/05/12		H/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	03/05/12		H/T	SW8260
Vinyl chloride	ND	1.0	ug/L	03/05/12		H/T	SW8260
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	107		%	03/05/12		H/T	70 - 130 %
% Bromofluorobenzene	83		%	03/05/12		H/T	70 - 130 %
% Dibromofluoromethane	107		%	03/05/12		H/T	70 - 130 %
% Toluene-d8	94		%	03/05/12		H/T	70 - 130 %
Semivolatiles							
1,2,4-Trichlorobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
1,2-Dichlorobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
1,3-Dichlorobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
1,4-Dichlorobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
2,4,5-Trichlorophenol	ND	10	ug/L	03/02/12		KCA	SW8270
2,4,6-Trichlorophenol	ND	10	ug/L	03/02/12		KCA	SW8270
2,4-Dichlorophenol	ND	10	ug/L	03/02/12		KCA	SW8270
2,4-Dimethylphenol	ND	10	ug/L	03/02/12		KCA	SW8270
2,4-Dinitrophenol	ND	50	ug/L	03/02/12		KCA	SW8270
2,4-Dinitrotoluene	ND	5.0	ug/L	03/02/12		KCA	SW8270
2,6-Dinitrotoluene	ND	5.0	ug/L	03/02/12		KCA	SW8270
2-Chloronaphthalene	ND	5.0	ug/L	03/02/12		KCA	SW8270
2-Chlorophenol	ND	10	ug/L	03/02/12		KCA	SW8270
2-Methylnaphthalene	ND	5.0	ug/L	03/02/12		KCA	SW8270
2-Methylphenol (o-cresol)	ND	10	ug/L	03/02/12		KCA	SW8270
2-Nitroaniline	ND	50	ug/L	03/02/12		KCA	SW8270
2-Nitrophenol	ND	10	ug/L	03/02/12		KCA	SW8270
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	03/02/12		KCA	SW8270
3,3'-Dichlorobenzidine	ND	50	ug/L	03/02/12		KCA	SW8270
3-Nitroaniline	ND	50	ug/L	03/02/12		KCA	SW8270
4,6-Dinitro-2-methylphenol	ND	50	ug/L	03/02/12		KCA	SW8270
4-Bromophenyl phenyl ether	ND	5.0	ug/L	03/02/12		KCA	SW8270
4-Chloro-3-methylphenol	ND	20	ug/L	03/02/12		KCA	SW8270
4-Chloroaniline	ND	20	ug/L	03/02/12		KCA	SW8270
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	03/02/12		KCA	SW8270
4-Nitroaniline	ND	20	ug/L	03/02/12		KCA	SW8270
4-Nitrophenol	ND	50	ug/L	03/02/12		KCA	SW8270
Acetophenone	ND	5.0	ug/L	03/02/12		KCA	SW8270
Aniline	ND	10	ug/L	03/02/12		KCA	SW8270
Anthracene	ND	5.0	ug/L	03/02/12		KCA	SW8270

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Parameter	Result	RL	Units	Date	Time	By	Reference
Azobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Benzidine	ND	50	ug/L	03/02/12		KCA	SW8270
Benzoic acid	ND	50	ug/L	03/02/12		KCA	SW8270
Benzyl butyl phthalate	ND	5.0	ug/L	03/02/12		KCA	SW8270
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	03/02/12		KCA	SW8270
Bis(2-chloroethyl)ether	ND	5.0	ug/L	03/02/12		KCA	SW8270
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	03/02/12		KCA	SW8270
Carbazole	ND	5.0	ug/L	03/02/12		KCA	SW8270
Dibenzofuran	ND	5.0	ug/L	03/02/12		KCA	SW8270
Diethyl phthalate	ND	5.0	ug/L	03/02/12		KCA	SW8270
Dimethylphthalate	ND	5.0	ug/L	03/02/12		KCA	SW8270
Di-n-butylphthalate	ND	5.0	ug/L	03/02/12		KCA	SW8270
Di-n-octylphthalate	ND	5.0	ug/L	03/02/12		KCA	SW8270
Fluoranthene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Fluorene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Hexachlorobutadiene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Hexachlorocyclopentadiene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Isophorone	ND	5.0	ug/L	03/02/12		KCA	SW8270
Naphthalene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Nitrobenzene	ND	5.0	ug/L	03/02/12		KCA	SW8270
N-Nitrosodimethylamine	ND	5.0	ug/L	03/02/12		KCA	SW8270
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	03/02/12		KCA	SW8270
N-Nitrosodiphenylamine	ND	5.0	ug/L	03/02/12		KCA	SW8270
Phenol	ND	10	ug/L	03/02/12		KCA	SW8270
Pyrene	ND	5.0	ug/L	03/02/12		KCA	SW8270
Pyridine	ND	5.0	ug/L	03/02/12		KCA	SW8270
QA/QC Surrogates							
% 2,4,6-Tribromophenol	31		%	03/02/12		KCA	15 - 130 %
% 2-Fluorobiphenyl	76		%	03/02/12		KCA	15 - 130 %
% 2-Fluorophenol	18		%	03/02/12		KCA	15 - 130 %
% Nitrobenzene-d5	81		%	03/02/12		KCA	15 - 130 %
% Phenol-d5	21		%	03/02/12		KCA	15 - 130 %
% Terphenyl-d14	98		%	03/02/12		KCA	15 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	1.6	ug/L	03/01/12		KCA	SW8270 (SIM)
Acenaphthene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Acenaphthylene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Benz(a)anthracene	ND	0.040	ug/L	03/01/12		KCA	SW8270 (SIM)
Benzo(a)pyrene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Benzo(b)fluoranthene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Benzo(ghi)perylene	ND	3.0	ug/L	03/01/12		KCA	SW8270 (SIM)
Benzo(k)fluoranthene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.6	ug/L	03/01/12		KCA	SW8270 (SIM)
Chrysene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Dibenz(a,h)anthracene	ND	0.010	ug/L	03/01/12		KCA	SW8270 (SIM)
Hexachlorobenzene	ND	0.060	ug/L	03/01/12		KCA	SW8270 (SIM)
Hexachloroethane	ND	2.4	ug/L	03/01/12		KCA	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	03/01/12		KCA	SW8270 (SIM)
Pentachlorophenol	ND	0.80	ug/L	03/01/12		KCA	SW8270 (SIM)

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Parameter	Result	RL	Units	Date	Time	By	Reference
Phenanthrene	ND	0.050	ug/L	03/01/12		KCA	SW8270 (SIM)
QA/QC Surrogates							
% 2,4,6-Tribromophenol	31		%	03/01/12		KCA	15 - 130 %
% 2-Fluorobiphenyl	76		%	03/01/12		KCA	15 - 130 %
% 2-Fluorophenol	18		%	03/01/12		KCA	15 - 130 %
% Nitrobenzene-d5	81		%	03/01/12		KCA	15 - 130 %
% Phenol-d5	21		%	03/01/12		KCA	15 - 130 %
% Terphenyl-d14	98		%	03/01/12		KCA	15 - 130 %

Comments:

* Poor surrogate recovery was observed for semivolatiles. The other surrogates associated with this sample were within QA/QC criteria. No further action was necessary.
Total Cyanide: This sample was received with a pH<12; pH was adjusted to >12 (EPA requires preservation at time of sampling to a pH of >12.) A sample bias can not be ruled out.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 08, 2012

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 195169, QC Sample No: BB47843 (BB48559, BB48560, BB48561, BB48562)												
ICP Metals - Soil												
Aluminum	BDL	4380	4730	7.70	113	108	4.5	NC	NC	NC	75 - 125	30
Antimony	BDL	<0.69	<3.4	NC	102	96.0	6.1	87.3	89.1	2.0	75 - 125	30
Arsenic	BDL	1.07	1.21	NC	102	96.8	5.2	90.7	92.0	1.4	75 - 125	30
Barium	BDL	18.1	17.8	1.70	105	97.8	7.1	100	101	1.0	75 - 125	30
Beryllium	BDL	<0.34	<0.27	NC	105	101	3.9	92.8	95.7	3.1	75 - 125	30
Cadmium	BDL	<0.34	<0.34	NC	109	102	6.6	94.1	96.8	2.8	75 - 125	30
Calcium	BDL	1440	1430	0.70	102	107	4.8	NC	NC	NC	75 - 125	30
Chromium	BDL	10.5	10.3	1.90	110	105	4.7	95.6	99.4	3.9	75 - 125	30
Cobalt	BDL	2.63	4.23	46.6	105	102	2.9	94.2	96.2	2.1	75 - 125	30
Copper	BDL	30.7	36.6	17.5	108	103	4.7	94.2	103	8.9	75 - 125	30
Iron	BDL	8490	8680	2.20	118	115	2.6	NC	NC	NC	75 - 125	30
Lead	BDL	11.2	11.2	0	103	100	3.0	94.5	96.8	2.4	75 - 125	30
Magnesium	BDL	1920	2040	6.10	108	108	0.0	NC	NC	NC	75 - 125	30
Manganese	BDL	120	118	1.70	105	107	1.9	96.8	101	4.2	75 - 125	30
Nickel	BDL	6.21	6.27	1.00	106	104	1.9	92.6	94.5	2.0	75 - 125	30
Potassium	BDL	690	601	13.8	103	95.5	7.6	124	115	7.5	75 - 125	30
Selenium	BDL	<1.4	<1.4	NC	95.9	93.6	2.4	86.7	87.9	1.4	75 - 125	30
Silver	BDL	<0.34	<0.34	NC	105	98.6	6.3	90.6	92.0	1.5	75 - 125	30
Sodium	5.6	343	341	0.60	114	104	9.2	>130	>130	NC	75 - 125	30
Thallium	BDL	<0.28	<3.1	NC	104	96.1	7.9	90.6	92.5	2.1	75 - 125	30
Vanadium	BDL	9.67	11.4	16.4	108	104	3.8	95.6	96.5	0.9	75 - 125	30
Zinc	BDL	37.6	39.9	5.90	101	98.9	2.1	93.7	98.1	4.6	75 - 125	30
QA/QC Batch 195235, QC Sample No: BB48095 (BB48563, BB48564, BB48565)												
ICP Metals - Soil												
Aluminum	BDL	3040	3340	9.40	108	108	0.0	NC	NC	NC	75 - 125	30
Antimony	BDL	<0.75	<3.5	NC	83.5	86.3	3.3	95.5	94.9	0.6	75 - 125	30
Arsenic	BDL	<0.75	<0.70	NC	96.3	96.3	0.0	99.0	99.6	0.6	75 - 125	30
Barium	BDL	8.19	7.83	4.50	103	101	2.0	106	107	0.9	75 - 125	30
Beryllium	BDL	<0.38	<0.28	NC	104	99.7	4.2	106	105	0.9	75 - 125	30
Cadmium	BDL	<0.38	<0.35	NC	104	101	2.9	106	106	0.0	75 - 125	30
Calcium	BDL	842	905	7.20	105	99.3	5.6	NC	NC	NC	75 - 125	30
Chromium	BDL	4.31	4.50	4.30	105	103	1.9	106	105	0.9	75 - 125	30
Cobalt	BDL	2.22	2.01	9.90	104	99.8	4.1	106	106	0.0	75 - 125	30
Copper	0.43	3.61	3.63	0.60	101	98.6	2.4	101	104	2.9	75 - 125	30
Iron	BDL	5660	5830	3.00	111	112	0.9	NC	NC	NC	75 - 125	30
Lead	BDL	1.90	1.60	NC	100	103	3.0	105	105	0.0	75 - 125	30
Magnesium	BDL	1160	1220	5.00	102	102	0.0	NC	NC	NC	75 - 125	30
Manganese	BDL	108	96.7	11.0	104	103	1.0	95.4	100	4.7	75 - 125	30
Nickel	BDL	4.21	4.24	0.70	105	100	4.9	105	105	0.0	75 - 125	30
Potassium	BDL	313	311	0.60	95.5	91.6	4.2	90.2	95.4	5.6	75 - 125	30
Selenium	BDL	<1.5	<1.4	NC	89.3	87.5	2.0	92.1	92.8	0.8	75 - 125	30

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Silver	BDL	<0.38	<0.35	NC	95.5	94.7	0.8	96.7	96.4	0.3	75 - 125	30
Sodium	BDL	206	201	2.50	98.6	93.1	5.7	112	117	4.4	75 - 125	30
Thallium	BDL	<0.30	<3.2	NC	98.4	99.4	1.0	101	101	0.0	75 - 125	30
Vanadium	BDL	9.69	9.63	0.60	104	103	1.0	106	105	0.9	75 - 125	30
Zinc	BDL	15.7	16.6	5.60	100	96.2	3.9	102	102	0.0	75 - 125	30
QA/QC Batch 195240, QC Sample No: BB48307 (BB48566)												
ICP Metals - Dissolved												
Aluminum	BDL	0.03	0.03	NC	81.2	84.0	3.4	86.7	88.4	1.9	75 - 125	20
Antimony	BDL	<0.005	<0.005	NC	81.6	84.1	3.0	86.8	88.9	2.4	75 - 125	20
Arsenic	BDL	<0.004	<0.004	NC	81.7	83.7	2.4	87.3	89.1	2.0	75 - 125	20
Barium	BDL	0.005	0.005	NC	82.2	82.3	0.1	87.9	89.9	2.2	75 - 125	20
Beryllium	BDL	<0.004	<0.001	NC	81.7	81.7	0.0	88.0	89.0	1.1	75 - 125	20
Cadmium	BDL	<0.001	<0.001	NC	84.2	86.4	2.6	90.2	92.0	2.0	75 - 125	20
Calcium	BDL	4.77	4.89	2.50	82.7	84.6	2.3	88.2	94.0	6.4	75 - 125	20
Chromium	BDL	<0.001	<0.001	NC	81.5	84.4	3.5	88.0	89.6	1.8	75 - 125	20
Cobalt	BDL	<0.004	<0.001	NC	82.2	84.4	2.6	88.3	90.2	2.1	75 - 125	20
Copper	BDL	<0.005	<0.005	NC	82.0	84.3	2.8	88.5	90.7	2.5	75 - 125	20
Iron	BDL	0.113	0.115	1.80	81.3	83.7	2.9	86.9	88.8	2.2	75 - 125	20
Lead	BDL	<0.0005	<0.002	NC	83.5	85.7	2.6	87.6	89.7	2.4	75 - 125	20
Magnesium	BDL	1.11	1.10	0.90	84.0	83.7	0.4	83.1	84.3	1.4	75 - 125	20
Manganese	BDL	0.013	0.013	0	82.5	82.4	0.1	88.1	89.8	1.9	75 - 125	20
Nickel	BDL	0.001	<0.001	NC	81.2	83.3	2.6	87.1	89.0	2.2	75 - 125	20
Potassium	BDL	2.0	2.0	0	108	113	4.5	117	118	0.9	75 - 125	20
Selenium	BDL	<0.011	<0.011	NC	77.8	79.5	2.2	82.6	84.5	2.3	75 - 125	20
Silver	BDL	0.001	0.001	NC	79.7	81.1	1.7	85.0	87.8	3.2	75 - 125	20
Sodium	BDL	5.89	5.94	0.80	84.2	88.3	4.8	NC	NC	NC	75 - 125	20
Vanadium	BDL	0.002	<0.002	NC	80.6	82.9	2.8	86.7	88.6	2.2	75 - 125	20
Zinc	BDL	0.012	0.011	8.70	82.6	84.5	2.3	88.4	90.5	2.3	75 - 125	20
QA/QC Batch 195293, QC Sample No: BB48559 (BB48559, BB48560, BB48561, BB48562, BB48563, BB48564, BB48565)												
Mercury - Soil	BDL	<0.06	<0.07	NC	85.2	91.1	6.7	108	99.1	8.6	70 - 130	30
QA/QC Batch 195262, QC Sample No: BB48585 (BB48566)												
Mercury - Water	BDL	<0.0002	<0.0002	NC	98.3	98.5	0.2	97.6	99.8	2.2	70 - 130	20

m = This parameter is outside laboratory ms/msd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 08, 2012

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 195323, QC Sample No: BB48148 (BB48566)													
Total Cyanide	BDL	0.13	0.13	0	98.2			83.0			85 - 115	20	m
QA/QC Batch 195244, QC Sample No: BB48193 (BB48559, BB48560, BB48561, BB48562, BB48563, BB48564, BB48565)													
Total Cyanide	BDL	4.20	<1.6	NC	96.7			< 75			85 - 115	30	m

m = This parameter is outside laboratory ms/msd specified recovery limits.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 08, 2012

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 195504, QC Sample No: BB47218 (BB48566)										
Volatiles - Liquid										
1,1,1,2-Tetrachloroethane	ND	103	111	7.5	109	112	2.7	70 - 130	30	
1,1,1-Trichloroethane	ND	97	102	5.0	117	117	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	91	101	10.4	95	100	5.1	70 - 130	30	
1,1,2-Trichloroethane	ND	91	101	10.4	100	91	9.4	70 - 130	30	
1,1-Dichloroethane	ND	99	99	0.0	114	116	1.7	70 - 130	30	
1,1-Dichloroethene	ND	86	95	9.9	114	118	3.4	70 - 130	30	
1,1-Dichloropropene	ND	111	95	15.5	123	116	5.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	87	103	16.8	86	98	13.0	70 - 130	30	
1,2,3-Trichloropropane	ND	88	103	15.7	90	98	8.5	70 - 130	30	
1,2,4-Trichlorobenzene	ND	85	94	10.1	90	98	8.5	70 - 130	30	
1,2,4-Trimethylbenzene	ND	97	101	4.0	98	102	4.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	110	129	15.9	121	129	6.4	70 - 130	30	
1,2-Dichlorobenzene	ND	88	94	6.6	92	97	5.3	70 - 130	30	
1,2-Dichloroethane	ND	104	108	3.8	115	103	11.0	70 - 130	30	
1,2-Dichloropropane	ND	57	70	20.5	96	90	6.5	70 - 130	30	I
1,3,5-Trimethylbenzene	ND	99	101	2.0	97	104	7.0	70 - 130	30	
1,3-Dichlorobenzene	ND	94	96	2.1	95	101	6.1	70 - 130	30	
1,3-Dichloropropane	ND	97	111	13.5	99	105	5.9	70 - 130	30	
1,4-Dichlorobenzene	ND	86	92	6.7	91	95	4.3	70 - 130	30	
2,2-Dichloropropane	ND	71	81	13.2	92	92	0.0	70 - 130	30	
2-Chlorotoluene	ND	95	97	2.1	98	102	4.0	70 - 130	30	
2-Hexanone	ND	88	113	24.9	79	95	18.4	70 - 130	30	
2-Isopropyltoluene	ND	94	95	1.1	101	105	3.9	70 - 130	30	
4-Chlorotoluene	ND	93	97	4.2	98	106	7.8	70 - 130	30	
4-Methyl-2-pentanone	ND	87	104	17.8	97	89	8.6	70 - 130	30	
Acetone	ND	120	143	17.5	120	148	20.9	70 - 130	30	I,m
Acrylonitrile	ND	117	140	17.9	123	131	6.3	70 - 130	30	I,m
Benzene	ND	117	103	12.7	110	107	2.8	70 - 130	30	
Bromobenzene	ND	99	103	4.0	95	104	9.0	70 - 130	30	
Bromochloromethane	ND	97	115	17.0	115	121	5.1	70 - 130	30	
Bromodichloromethane	ND	80	92	14.0	110	100	9.5	70 - 130	30	
Bromoform	ND	111	125	11.9	142	141	0.7	70 - 130	30	m
Bromomethane	ND	85	95	11.1	108	117	8.0	70 - 130	30	
Carbon Disulfide	ND	91	101	10.4	131	132	0.8	70 - 130	30	m
Carbon tetrachloride	ND	118	112	5.2	146	130	11.6	70 - 130	30	m
Chlorobenzene	ND	92	95	3.2	98	103	5.0	70 - 130	30	
Chloroethane	ND	100	106	5.8	117	135	14.3	70 - 130	30	m
Chloroform	ND	93	105	12.1	112	115	2.6	70 - 130	30	
Chloromethane	ND	89	98	9.6	103	109	5.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	95	122	24.9	NC	NC	NC	70 - 130	30	
cis-1,3-Dichloropropene	ND	92	100	8.3	105	95	10.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibromochloromethane	ND	112	117	4.4	123	126	2.4	70 - 130	30
Dibromoethane	ND	95	106	10.9	102	92	10.3	70 - 130	30
Dibromomethane	ND	82	79	3.7	101	91	10.4	70 - 130	30
Dichlorodifluoromethane	ND	99	105	5.9	129	139	7.5	70 - 130	30
Ethylbenzene	ND	98	98	0.0	101	105	3.9	70 - 130	30
Hexachlorobutadiene	ND	77	84	8.7	91	100	9.4	70 - 130	30
Isopropylbenzene	ND	104	104	0.0	103	110	6.6	70 - 130	30
m&p-Xylene	ND	95	96	1.0	99	107	7.8	70 - 130	30
Methyl ethyl ketone	ND	90	100	10.5	108	105	2.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	89	97	8.6	77	77	0.0	70 - 130	30
Methylene chloride	ND	82	96	15.7	107	107	0.0	70 - 130	30
Naphthalene	ND	82	106	25.5	74	91	20.6	70 - 130	30
n-Butylbenzene	ND	86	89	3.4	96	100	4.1	70 - 130	30
n-Propylbenzene	ND	90	91	1.1	99	106	6.8	70 - 130	30
o-Xylene	ND	98	99	1.0	103	107	3.8	70 - 130	30
p-Isopropyltoluene	ND	100	100	0.0	101	106	4.8	70 - 130	30
sec-Butylbenzene	ND	92	92	0.0	99	102	3.0	70 - 130	30
Styrene	ND	95	100	5.1	104	109	4.7	70 - 130	30
tert-Butylbenzene	ND	99	100	1.0	100	106	5.8	70 - 130	30
Tetrachloroethene	ND	98	97	1.0	110	117	6.2	70 - 130	30
Tetrahydrofuran (THF)	ND	105	121	14.2	113	121	6.8	70 - 130	30
Toluene	ND	92	92	0.0	100	91	9.4	70 - 130	30
trans-1,2-Dichloroethene	ND	86	94	8.9	109	113	3.6	70 - 130	30
trans-1,3-Dichloropropene	ND	95	104	9.0	110	100	9.5	70 - 130	30
trans-1,4-dichloro-2-butene	ND	87	101	14.9	93	96	3.2	70 - 130	30
Trichloroethene	ND	92	96	4.3	104	105	1.0	70 - 130	30
Trichlorofluoromethane	ND	101	109	7.6	112	120	6.9	70 - 130	30
Trichlorotrifluoroethane	ND	83	90	8.1	110	116	5.3	70 - 130	30
Vinyl chloride	ND	98	104	5.9	114	124	8.4	70 - 130	30
% 1,2-dichlorobenzene-d4	102	101	99	2.0	101	101	0.0	70 - 130	30
% Bromofluorobenzene	89	101	103	2.0	103	103	0.0	70 - 130	30
% Dibromofluoromethane	101	102	104	1.9	109	113	3.6	70 - 130	30
% Toluene-d8	94	95	94	1.1	99	86	14.1	70 - 130	30
QA/QC Batch 195177, QC Sample No: BB47870 (BB48566)									
Pesticides - Liquid									
4,4' -DDD	ND	105	109	3.7				40 - 140	20
4,4' -DDE	ND	102	106	3.8				40 - 140	20
4,4' -DDT	ND	100	105	4.9				40 - 140	20
a-BHC	ND	105	110	4.7				40 - 140	20
Alachlor	ND	N/A	N/A	NC				40 - 140	20
Aldrin	ND	94	102	8.2				40 - 140	20
b-BHC	ND	87	94	7.7				40 - 140	20
Chlordane	ND	N/A	N/A	NC				40 - 140	20
d-BHC	ND	99	103	4.0				40 - 140	20
Dieldrin	ND	100	103	3.0				40 - 140	20
Endosulfan I	ND	94	98	4.2				40 - 140	20
Endosulfan II	ND	96	100	4.1				40 - 140	20
Endosulfan sulfate	ND	98	102	4.0				40 - 140	20
Endrin	ND	98	102	4.0				40 - 140	20
Endrin aldehyde	ND	107	112	4.6				40 - 140	20
Endrin ketone	ND	96	101	5.1				40 - 140	20
g-BHC	ND	97	101	4.0				40 - 140	20

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Heptachlor	ND	94	99	5.2				40 - 140	20
Heptachlor epoxide	ND	95	99	4.1				40 - 140	20
Methoxychlor	ND	99	105	5.9				40 - 140	20
Toxaphene	ND	N/A	N/A	NC				40 - 140	20
% DCBP	88	95	98	3.1				30 - 150	20
% TCMX	81	88	93	5.5				30 - 150	20

Comment:

A LCS and LCS duplicate were performed instead of a matrix spike and matrix spike duplicate, unless otherwise noted. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane.

QA/QC Batch 195176, QC Sample No: BB47870 (BB48566)

Polychlorinated Biphenyls - Liquid

PCB-1016	ND	92	84	9.1				40 - 140	20
PCB-1221	ND							40 - 140	20
PCB-1232	ND							40 - 140	20
PCB-1242	ND							40 - 140	20
PCB-1248	ND							40 - 140	20
PCB-1254	ND							40 - 140	20
PCB-1260	ND	86	84	2.4				40 - 140	20
PCB-1262	ND							40 - 140	20
PCB-1268	ND							40 - 140	20
% DCBP (Surrogate Rec)	81	83	83	0.0				30 - 150	20
% TCMX (Surrogate Rec)	75	74	76	2.7				30 - 150	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 195166, QC Sample No: BB48109 (BB48559, BB48560, BB48561, BB48562, BB48563, BB48564, BB48565)

Pesticides - Solid

4,4' -DDD	ND	62	69	10.7	82	75	8.9	40 - 140	30
4,4' -DDE	ND	60	69	14.0	82	73	11.6	40 - 140	30
4,4' -DDT	ND	58	65	11.4	77	69	11.0	40 - 140	30
a-BHC	ND	60	73	19.5	88	79	10.8	40 - 140	30
Alachlor	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
Aldrin	ND	58	69	17.3	82	74	10.3	40 - 140	30
b-BHC	ND	57	71	21.9	84	77	8.7	40 - 140	30
Chlordane	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
d-BHC	ND	57	70	20.5	85	77	9.9	40 - 140	30
Dieldrin	ND	59	69	15.6	81	73	10.4	40 - 140	30
Endosulfan I	ND	57	65	13.1	80	71	11.9	40 - 140	30
Endosulfan II	ND	55	56	1.8	78	72	8.0	40 - 140	30
Endosulfan sulfate	ND	58	63	8.3	79	72	9.3	40 - 140	30
Endrin	ND	56	60	6.9	74	69	7.0	40 - 140	30
Endrin aldehyde	ND	66	49	29.6	91	82	10.4	40 - 140	30
Endrin ketone	ND	64	72	11.8	86	79	8.5	40 - 140	30
g-BHC	ND	59	72	19.8	86	78	9.8	40 - 140	30
Heptachlor	ND	57	68	17.6	80	72	10.5	40 - 140	30
Heptachlor epoxide	ND	57	68	17.6	80	72	10.5	40 - 140	30
Methoxychlor	ND	61	67	9.4	78	72	8.0	40 - 140	30
Toxaphene	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
% DCBP	83	68	74	8.5	83	77	7.5	30 - 150	30
% TCMX	89	69	79	13.5	92	83	10.3	30 - 150	30

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 195365, QC Sample No: BB48411 (BB48561, BB48563, BB48564, BB48565)									
Volatiles - Solid									
1,1,1,2-Tetrachloroethane	ND	112	114	1.8	105	108	2.8	70 - 130	30
1,1,1-Trichloroethane	ND	112	114	1.8	110	110	0.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	115	102	12.0	92	104	12.2	70 - 130	30
1,1,2-Trichloroethane	ND	120	110	8.7	113	119	5.2	70 - 130	30
1,1-Dichloroethane	ND	108	108	0.0	105	105	0.0	70 - 130	30
1,1-Dichloroethene	ND	95	113	17.3	112	101	10.3	70 - 130	30
1,1-Dichloropropene	ND	110	116	5.3	111	108	2.7	70 - 130	30
1,2,3-Trichlorobenzene	ND	130	124	4.7	98	107	8.8	70 - 130	30
1,2,3-Trichloropropane	ND	116	104	10.9	108	119	9.7	70 - 130	30
1,2,4-Trichlorobenzene	ND	128	127	0.8	97	102	5.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	121	126	4.0	110	109	0.9	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	126	103	20.1	98	126	25.0	70 - 130	30
1,2-Dichlorobenzene	ND	115	113	1.8	103	106	2.9	70 - 130	30
1,2-Dichloroethane	ND	112	105	6.5	107	112	4.6	70 - 130	30
1,2-Dichloropropane	ND	110	108	1.8	108	108	0.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	121	128	5.6	111	107	3.7	70 - 130	30
1,3-Dichlorobenzene	ND	116	118	1.7	103	104	1.0	70 - 130	30
1,3-Dichloropropane	ND	117	108	8.0	111	117	5.3	70 - 130	30
1,4-Dichlorobenzene	ND	116	116	0.0	102	102	0.0	70 - 130	30
2,2-Dichloropropane	ND	111	113	1.8	101	101	0.0	70 - 130	30
2-Chlorotoluene	ND	113	120	6.0	108	105	2.8	70 - 130	30
2-Hexanone	ND	106	91	15.2	96	99	3.1	70 - 130	30
2-Isopropyltoluene	ND	116	123	5.9	113	111	1.8	70 - 130	30
4-Chlorotoluene	ND	114	118	3.4	106	104	1.9	70 - 130	30
4-Methyl-2-pentanone	ND	120	100	18.2	102	112	9.3	70 - 130	30
Acetone	ND	119	103	14.4	109	110	0.9	70 - 130	30
Acrylonitrile	ND	121	95	24.1	103	123	17.7	70 - 130	30
Benzene	ND	110	114	3.6	110	108	1.8	70 - 130	30
Bromobenzene	ND	114	115	0.9	107	106	0.9	70 - 130	30
Bromochloromethane	ND	119	107	10.6	110	120	8.7	70 - 130	30
Bromodichloromethane	ND	118	115	2.6	109	113	3.6	70 - 130	30
Bromoform	ND	123	114	7.6	97	118	19.5	70 - 130	30
Bromomethane	ND	125	128	2.4	123	129	4.8	70 - 130	30
Carbon Disulfide	ND	92	104	12.2	100	93	7.3	70 - 130	30
Carbon tetrachloride	ND	105	115	9.1	100	103	3.0	70 - 130	30
Chlorobenzene	ND	109	111	1.8	106	105	0.9	70 - 130	30
Chloroethane	ND	95	103	8.1	99	98	1.0	70 - 130	30
Chloroform	ND	116	115	0.9	113	113	0.0	70 - 130	30
Chloromethane	ND	86	102	17.0	87	86	1.2	70 - 130	30
cis-1,2-Dichloroethene	ND	114	113	0.9	115	111	3.5	70 - 130	30
cis-1,3-Dichloropropene	ND	113	111	1.8	107	109	1.9	70 - 130	30
Dibromochloromethane	ND	119	113	5.2	105	115	9.1	70 - 130	30
Dibromoethane	ND	120	109	9.6	113	124	9.3	70 - 130	30
Dibromomethane	ND	120	110	8.7	111	120	7.8	70 - 130	30
Dichlorodifluoromethane	ND	101	103	2.0	104	99	4.9	70 - 130	30
Ethylbenzene	ND	112	115	2.6	108	106	1.9	70 - 130	30
Hexachlorobutadiene	ND	121	130	7.2	112	110	1.8	70 - 130	30
Isopropylbenzene	ND	112	120	6.9	111	105	5.6	70 - 130	30
m&p-Xylene	ND	113	118	4.3	105	105	0.0	70 - 130	30
Methyl ethyl ketone	ND	105	84	22.2	93	100	7.3	70 - 130	30

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Methyl t-butyl ether (MTBE)	ND	102	100	2.0	103	103	0.0	70 - 130	30	
Methylene chloride	ND	97	112	14.4	108	95	12.8	70 - 130	30	
Naphthalene	ND	133	118	12.0	105	125	17.4	70 - 130	30	I
n-Butylbenzene	ND	126	137	8.4	108	107	0.9	70 - 130	30	I
n-Propylbenzene	ND	110	118	7.0	107	104	2.8	70 - 130	30	
o-Xylene	ND	113	115	1.8	106	107	0.9	70 - 130	30	
p-Isopropyltoluene	ND	125	135	7.7	110	108	1.8	70 - 130	30	I
sec-Butylbenzene	ND	116	124	6.7	113	108	4.5	70 - 130	30	
Styrene	ND	116	116	0.0	106	107	0.9	70 - 130	30	
tert-Butylbenzene	ND	115	122	5.9	115	110	4.4	70 - 130	30	
Tetrachloroethene	ND	107	114	6.3	105	101	3.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	115	92	22.2	97	117	18.7	70 - 130	30	
Toluene	ND	114	116	1.7	111	110	0.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	88	118	29.1	>150	94	NC	70 - 130	30	m
trans-1,3-Dichloropropene	ND	117	111	5.3	105	110	4.7	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	127	115	9.9	96	107	10.8	70 - 130	30	
Trichloroethene	ND	111	116	4.4	118	114	3.4	70 - 130	30	
Trichlorofluoromethane	ND	131	148	12.2	120	112	6.9	70 - 130	30	I
Trichlorotrifluoroethane	ND	102	120	16.2	116	102	12.8	70 - 130	30	
Vinyl chloride	ND	88	93	5.5	88	87	1.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	102	100	2.0	100	102	2.0	70 - 130	30	
% Bromofluorobenzene	94	101	100	1.0	102	105	2.9	70 - 130	30	
% Dibromofluoromethane	98	103	99	4.0	98	101	3.0	70 - 130	30	
% Toluene-d8	98	101	102	1.0	103	103	0.0	70 - 130	30	

Comment:

A blank MS/MSD was analyzed with this batch.

QA/QC Batch 195217, QC Sample No: BB48559 (BB48559, BB48560, BB48561, BB48562, BB48563, BB48564, BB48565)

Polychlorinated Biphenyls - Solid

PCB-1016	ND	103	101	2.0	131	120	8.8	40 - 140	30	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	83	83	0.0	106	93	13.1	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	72	66	67	1.5	76	71	6.8	30 - 150	30	
% TCMX (Surrogate Rec)	89	77	77	0.0	83	81	2.4	30 - 150	30	

QA/QC Batch 195218, QC Sample No: BB48559 (BB48559, BB48560, BB48561, BB48562, BB48563, BB48564, BB48565)

Semivolatiles - Solid

1,2,4,5-Tetrachlorobenzene	ND	78	79	1.3	84	71	16.8	30 - 130	30	
1,2,4-Trichlorobenzene	ND	77	80	3.8	88	74	17.3	30 - 130	30	
1,2-Dichlorobenzene	ND	72	73	1.4	79	66	17.9	30 - 130	30	
1,3-Dichlorobenzene	ND	66	71	7.3	76	63	18.7	30 - 130	30	
1,4-Dichlorobenzene	ND	68	72	5.7	77	64	18.4	30 - 130	30	
2,4,5-Trichlorophenol	ND	78	77	1.3	80	66	19.2	30 - 130	30	
2,4,6-Trichlorophenol	ND	81	83	2.4	82	66	21.6	30 - 130	30	
2,4-Dichlorophenol	ND	86	85	1.2	85	76	11.2	30 - 130	30	
2,4-Dimethylphenol	ND	41	41	0.0	44	38	14.6	30 - 130	30	
2,4-Dinitrophenol	ND	<5	<5	NC	<5	<5	NC	30 - 130	30	l,m

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dinitrotoluene	ND	79	75	5.2	80	68	16.2	30 - 130	30	
2,6-Dinitrotoluene	ND	80	82	2.5	86	73	16.4	30 - 130	30	
2-Chloronaphthalene	ND	79	83	4.9	88	75	16.0	30 - 130	30	
2-Chlorophenol	ND	71	75	5.5	80	66	19.2	30 - 130	30	
2-Methylnaphthalene	ND	79	80	1.3	86	73	16.4	30 - 130	30	
2-Methylphenol (o-cresol)	ND	71	68	4.3	72	59	19.8	30 - 130	30	
2-Nitroaniline	ND	>150	>150	NC	>150	>150	NC	30 - 130	30	l,m
2-Nitrophenol	ND	79	81	2.5	89	73	19.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	71	73	2.8	75	64	15.8	30 - 130	30	
3,3'-Dichlorobenzidine	ND	>150	>150	NC	>150	>150	NC	30 - 130	30	l,m
3-Nitroaniline	ND	129	123	4.8	125	105	17.4	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	31	24	25.5	22	15	37.8	30 - 130	30	l,m,r
4-Bromophenyl phenyl ether	ND	88	85	3.5	87	68	24.5	30 - 130	30	
4-Chloro-3-methylphenol	ND	88	83	5.8	88	76	14.6	30 - 130	30	
4-Chloroaniline	ND	46	47	2.2	46	38	19.0	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	82	82	0.0	87	75	14.8	30 - 130	30	
4-Nitroaniline	ND	79	79	0.0	84	72	15.4	30 - 130	30	
4-Nitrophenol	ND	68	67	1.5	63	61	3.2	30 - 130	30	
Acenaphthene	ND	76	77	1.3	82	69	17.2	30 - 130	30	
Acenaphthylene	ND	80	82	2.5	87	74	16.1	30 - 130	30	
Acetophenone	ND	66	69	4.4	74	61	19.3	30 - 130	30	
Aniline	ND	<5	<5	NC	<5	<5	NC	30 - 130	30	l,m
Anthracene	ND	83	82	1.2	87	73	17.5	30 - 130	30	
Azobenzene	ND	74	72	2.7	77	65	16.9	30 - 130	30	
Benz(a)anthracene	ND	89	87	2.3	92	79	15.2	30 - 130	30	
Benzidine	ND	76	111	37.4	48	30	46.2	30 - 130	30	r
Benzo(a)pyrene	ND	90	88	2.2	89	74	18.4	30 - 130	30	
Benzo(b)fluoranthene	ND	100	99	1.0	102	80	24.2	30 - 130	30	
Benzo(ghi)perylene	ND	69	72	4.3	96	76	23.3	30 - 130	30	
Benzo(k)fluoranthene	ND	109	108	0.9	98	81	19.0	30 - 130	30	
Benzyl butyl phthalate	ND	82	76	7.6	111	102	8.5	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	81	83	2.4	88	75	16.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	64	68	6.1	72	60	18.2	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	79	79	0.0	83	70	17.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	99	95	4.1	109	95	13.7	30 - 130	30	
Carbazole	ND	100	100	0.0	112	101	10.3	30 - 130	30	
Chrysene	ND	93	93	0.0	92	78	16.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	74	76	2.7	97	80	19.2	30 - 130	30	
Dibenzofuran	ND	80	79	1.3	85	72	16.6	30 - 130	30	
Diethyl phthalate	ND	87	85	2.3	89	76	15.8	30 - 130	30	
Dimethylphthalate	ND	84	85	1.2	89	75	17.1	30 - 130	30	
Di-n-butylphthalate	ND	88	88	0.0	93	79	16.3	30 - 130	30	
Di-n-octylphthalate	ND	102	89	13.6	81	73	10.4	30 - 130	30	
Fluoranthene	ND	88	91	3.4	112	97	14.4	30 - 130	30	
Fluorene	ND	84	83	1.2	89	76	15.8	30 - 130	30	
Hexachlorobenzene	ND	90	90	0.0	92	76	19.0	30 - 130	30	
Hexachlorobutadiene	ND	80	84	4.9	94	76	21.2	30 - 130	30	
Hexachlorocyclopentadiene	ND	57	57	0.0	22	9.9	75.9	30 - 130	30	m,r
Hexachloroethane	ND	67	73	8.6	74	59	22.6	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	75	76	1.3	98	81	19.0	30 - 130	30	
Isophorone	ND	69	71	2.9	74	63	16.1	30 - 130	30	
Naphthalene	ND	82	85	3.6	91	77	16.7	30 - 130	30	
Nitrobenzene	ND	75	77	2.6	81	69	16.0	30 - 130	30	

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
N-Nitrosodimethylamine	ND	59	63	6.6	67	57	16.1	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	74	75	1.3	79	66	17.9	30 - 130	30	
N-Nitrosodiphenylamine	ND	87	84	3.5	91	77	16.7	30 - 130	30	
Pentachloronitrobenzene	ND	84	82	2.4	84	70	18.2	30 - 130	30	
Pentachlorophenol	ND	68	64	6.1	58	62	6.7	30 - 130	30	
Phenanthrene	ND	88	87	1.1	95	79	18.4	30 - 130	30	
Phenol	ND	76	78	2.6	83	69	18.4	30 - 130	30	
Pyrene	ND	91	96	5.3	126	102	21.1	30 - 130	30	
Pyridine	ND	43	46	6.7	47	38	21.2	30 - 130	30	
% 2,4,6-Tribromophenol	38	92	90	2.2	88	64	31.6	15 - 130	30	r
% 2-Fluorobiphenyl	34	76	80	5.1	85	67	23.7	30 - 130	30	
% 2-Fluorophenol	34	68	71	4.3	76	58	26.9	15 - 130	30	
% Nitrobenzene-d5	33	70	73	4.2	77	61	23.2	30 - 130	30	
% Phenol-d5	34	69	71	2.9	75	59	23.9	15 - 130	30	
% Terphenyl-d14	29	73	81	10.4	103	64	46.7	30 - 130	30	r
QA/QC Batch 195094, QC Sample No: BB48566 (BB48566)										
Semivolatiles - Liquid										
1,2,4,5-Tetrachlorobenzene	ND	74	72	2.7				30 - 130	20	
1,2,4-Trichlorobenzene	ND	74	74	0.0				30 - 130	20	
1,2-Dichlorobenzene	ND	77	77	0.0				30 - 130	20	
1,3-Dichlorobenzene	ND	76	75	1.3				30 - 130	20	
1,4-Dichlorobenzene	ND	77	77	0.0				30 - 130	20	
2,4,5-Trichlorophenol	ND	83	82	1.2				30 - 130	20	
2,4,6-Trichlorophenol	ND	82	82	0.0				30 - 130	20	
2,4-Dichlorophenol	ND	81	83	2.4				30 - 130	20	
2,4-Dimethylphenol	ND	38	38	0.0				30 - 130	20	
2,4-Dinitrophenol	ND	48	61	23.9				30 - 130	20	r
2,4-Dinitrotoluene	ND	84	84	0.0				30 - 130	20	
2,6-Dinitrotoluene	ND	86	85	1.2				30 - 130	20	
2-Chloronaphthalene	ND	80	80	0.0				30 - 130	20	
2-Chlorophenol	ND	72	73	1.4				30 - 130	20	
2-Methylnaphthalene	ND	75	76	1.3				30 - 130	20	
2-Methylphenol (o-cresol)	ND	66	65	1.5				30 - 130	20	
2-Nitroaniline	ND	>150	>150	NC				30 - 130	20	I
2-Nitrophenol	ND	81	81	0.0				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	66	67	1.5				30 - 130	20	
3,3'-Dichlorobenzidine	ND	N/A	N/A	NC				30 - 130	20	
3-Nitroaniline	ND	>150	>150	NC				30 - 130	20	I
4,6-Dinitro-2-methylphenol	ND	82	93	12.6				30 - 130	20	
4-Bromophenyl phenyl ether	ND	82	84	2.4				30 - 130	20	
4-Chloro-3-methylphenol	ND	83	82	1.2				30 - 130	20	
4-Chloroaniline	ND	26	24	8.0				30 - 130	20	I
4-Chlorophenyl phenyl ether	ND	84	83	1.2				30 - 130	20	
4-Nitroaniline	ND	87	85	2.3				30 - 130	20	
4-Nitrophenol	ND	68	70	2.9				30 - 130	20	
Acenaphthene	ND	85	83	2.4				30 - 130	20	
Acenaphthylene	ND	81	80	1.2				30 - 130	20	
Acetophenone	ND	67	69	2.9				30 - 130	20	
Aniline	ND	N/A	N/A	NC				30 - 130	20	
Anthracene	ND	81	81	0.0				30 - 130	20	
Azobenzene	ND	75	74	1.3				30 - 130	20	
Benz(a)anthracene	ND	90	89	1.1				30 - 130	20	

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzidine	ND	N/A	N/A	NC				10 - 130	20
Benzo(a)pyrene	ND	79	79	0.0				30 - 130	20
Benzo(b)fluoranthene	ND	86	84	2.4				30 - 130	20
Benzo(ghi)perylene	ND	103	99	4.0				30 - 130	20
Benzo(k)fluoranthene	ND	84	83	1.2				30 - 130	20
Benzoic acid	ND	N/A	N/A	NC				30 - 130	20
Benzyl butyl phthalate	ND	75	73	2.7				30 - 130	20
Bis(2-chloroethoxy)methane	ND	78	77	1.3				30 - 130	20
Bis(2-chloroethyl)ether	ND	69	69	0.0				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	76	78	2.6				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	89	87	2.3				30 - 130	20
Carbazole	ND	116	116	0.0				30 - 130	20
Chrysene	ND	89	89	0.0				30 - 130	20
Dibenz(a,h)anthracene	ND	98	95	3.1				30 - 130	20
Dibenzofuran	ND	83	82	1.2				30 - 130	20
Diethyl phthalate	ND	73	72	1.4				30 - 130	20
Dimethylphthalate	ND	65	63	3.1				30 - 130	20
Di-n-butylphthalate	ND	83	82	1.2				30 - 130	20
Di-n-octylphthalate	ND	92	91	1.1				30 - 130	20
Fluoranthene	ND	82	84	2.4				30 - 130	20
Fluorene	ND	85	85	0.0				30 - 130	20
Hexachlorobenzene	ND	86	89	3.4				30 - 130	20
Hexachlorobutadiene	ND	77	76	1.3				30 - 130	20
Hexachlorocyclopentadiene	ND	16	23	35.9				30 - 130	20
Hexachloroethane	ND	76	75	1.3				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	101	98	3.0				30 - 130	20
Isophorone	ND	64	63	1.6				30 - 130	20
Naphthalene	ND	78	77	1.3				30 - 130	20
Nitrobenzene	ND	77	77	0.0				30 - 130	20
N-Nitrosodimethylamine	ND	50	50	0.0				30 - 130	20
N-Nitrosodi-n-propylamine	ND	77	77	0.0				30 - 130	20
N-Nitrosodiphenylamine	ND	89	90	1.1				30 - 130	20
Pentachloronitrobenzene	ND	79	76	3.9				30 - 130	20
Pentachlorophenol	ND	78	89	13.2				30 - 130	20
Phenanthrene	ND	87	87	0.0				30 - 130	20
Phenol	ND	56	57	1.8				30 - 130	20
Pyrene	ND	85	86	1.2				30 - 130	20
Pyridine	ND	<5	<5	NC				30 - 130	20
% 2,4,6-Tribromophenol	105	81	82	1.2				15 - 130	20
% 2-Fluorobiphenyl	75	73	72	1.4				30 - 130	20
% 2-Fluorophenol	85	57	58	1.7				15 - 130	20
% Nitrobenzene-d5	84	70	71	1.4				30 - 130	20
% Phenol-d5	82	54	53	1.9				15 - 130	20
% Terphenyl-d14	89	84	83	1.2				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 195434, QC Sample No: BB48789 (BB48560, BB48562)

Volatiles - Solid

1,1,1,2-Tetrachloroethane	ND	96	101	5.1	92	95	3.2	70 - 130	30
1,1,1-Trichloroethane	ND	87	90	3.4	91	84	8.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	94	91	3.2	104	89	15.5	70 - 130	30
1,1,2-Trichloroethane	ND	94	101	7.2	91	93	2.2	70 - 130	30

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1-Dichloroethane	ND	89	96	7.6	95	81	15.9	70 - 130	30	
1,1-Dichloroethene	ND	85	87	2.3	94	95	1.1	70 - 130	30	
1,1-Dichloropropene	ND	101	100	1.0	104	81	24.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	93	84	10.2	63	85	29.7	70 - 130	30	m
1,2,3-Trichloropropane	ND	85	92	7.9	86	80	7.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	90	76	16.9	64	75	15.8	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	99	91	8.4	89	89	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	95	105	10.0	96	100	4.1	70 - 130	30	
1,2-Dichlorobenzene	ND	96	91	5.3	86	86	0.0	70 - 130	30	
1,2-Dichloroethane	ND	89	96	7.6	87	78	10.9	70 - 130	30	
1,2-Dichloropropane	ND	94	102	8.2	96	91	5.3	70 - 130	30	
1,3,5-Trimethylbenzene	ND	100	94	6.2	90	91	1.1	70 - 130	30	
1,3-Dichlorobenzene	ND	96	87	9.8	85	81	4.8	70 - 130	30	
1,3-Dichloropropane	ND	94	103	9.1	93	96	3.2	70 - 130	30	
1,4-Dichlorobenzene	ND	94	85	10.1	83	79	4.9	70 - 130	30	
2,2-Dichloropropane	ND	86	86	0.0	86	83	3.6	70 - 130	30	
2-Chlorotoluene	ND	101	96	5.1	96	90	6.5	70 - 130	30	
2-Hexanone	ND	102	106	3.8	62	104	50.6	70 - 130	30	m,r
2-Isopropyltoluene	ND	101	95	6.1	91	91	0.0	70 - 130	30	
4-Chlorotoluene	ND	95	88	7.7	91	80	12.9	70 - 130	30	
4-Methyl-2-pentanone	ND	88	101	13.8	83	97	15.6	70 - 130	30	
Acetone	ND	73	70	4.2	<40	108	NC	70 - 130	30	m
Acrylonitrile	ND	86	96	11.0	89	87	2.3	70 - 130	30	
Benzene	ND	98	102	4.0	101	83	19.6	70 - 130	30	
Bromobenzene	ND	100	97	3.0	94	90	4.3	70 - 130	30	
Bromochloromethane	ND	90	96	6.5	90	89	1.1	70 - 130	30	
Bromodichloromethane	ND	92	99	7.3	91	87	4.5	70 - 130	30	
Bromoform	ND	93	102	9.2	94	95	1.1	70 - 130	30	
Bromomethane	ND	87	89	2.3	91	71	24.7	70 - 130	30	
Carbon Disulfide	ND	81	92	12.7	99	96	3.1	70 - 130	30	
Carbon tetrachloride	ND	95	97	2.1	99	74	28.9	70 - 130	30	
Chlorobenzene	ND	94	95	1.1	91	86	5.6	70 - 130	30	
Chloroethane	ND	89	104	15.5	101	95	6.1	70 - 130	30	
Chloroform	ND	86	90	4.5	89	85	4.6	70 - 130	30	
Chloromethane	ND	79	82	3.7	81	80	1.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	89	93	4.4	90	88	2.2	70 - 130	30	
cis-1,3-Dichloropropene	ND	95	99	4.1	92	91	1.1	70 - 130	30	
Dibromochloromethane	ND	94	101	7.2	93	96	3.2	70 - 130	30	
Dibromoethane	ND	90	99	9.5	88	91	3.4	70 - 130	30	
Dibromomethane	ND	89	98	9.6	89	89	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	89	98	9.6	97	82	16.8	70 - 130	30	
Ethylbenzene	ND	95	96	1.0	93	87	6.7	70 - 130	30	
Hexachlorobutadiene	ND	93	81	13.8	60	82	31.0	70 - 130	30	m,r
Isopropylbenzene	ND	103	99	4.0	101	93	8.2	70 - 130	30	
m&p-Xylene	ND	96	94	2.1	92	87	5.6	70 - 130	30	
Methyl ethyl ketone	ND	80	88	9.5	53	88	49.6	70 - 130	30	m,r
Methyl t-butyl ether (MTBE)	ND	86	93	7.8	76	77	1.3	70 - 130	30	
Methylene chloride	ND	76	81	6.4	76	89	15.8	70 - 130	30	
Naphthalene	ND	98	103	5.0	85	104	20.1	70 - 130	30	
n-Butylbenzene	ND	101	87	14.9	81	83	2.4	70 - 130	30	
n-Propylbenzene	ND	96	89	7.6	95	83	13.5	70 - 130	30	
o-Xylene	ND	97	98	1.0	93	89	4.4	70 - 130	30	
p-Isopropyltoluene	ND	105	95	10.0	87	92	5.6	70 - 130	30	

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
sec-Butylbenzene	ND	100	95	5.1	93	89	4.4	70 - 130	30	
Styrene	ND	96	91	5.3	91	86	5.6	70 - 130	30	
tert-Butylbenzene	ND	102	100	2.0	97	93	4.2	70 - 130	30	
Tetrachloroethene	ND	94	91	3.2	91	86	5.6	70 - 130	30	
Tetrahydrofuran (THF)	ND	81	91	11.6	86	91	5.6	70 - 130	30	
Toluene	ND	94	98	4.2	94	88	6.6	70 - 130	30	
trans-1,2-Dichloroethene	ND	80	79	1.3	78	80	2.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	96	99	3.1	90	90	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	106	105	0.9	102	97	5.0	70 - 130	30	
Trichloroethene	ND	96	102	6.1	90	92	2.2	70 - 130	30	
Trichlorofluoromethane	ND	93	96	3.2	87	101	14.9	70 - 130	30	
Trichlorotrifluoroethane	ND	80	85	6.1	89	95	6.5	70 - 130	30	
Vinyl chloride	ND	86	95	9.9	93	86	7.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	100	100	0.0	101	100	1.0	70 - 130	30	
% Bromofluorobenzene	92	97	96	1.0	94	93	1.1	70 - 130	30	
% Dibromofluoromethane	90	95	99	4.1	97	98	1.0	70 - 130	30	
% Toluene-d8	133	100	100	0.0	100	99	1.0	70 - 130	30	
QA/QC Batch 195444, QC Sample No: BB49076 (BB48559)										
Volatiles - Solid										
1,1,1,2-Tetrachloroethane	ND	123			106	90	16.3	70 - 130	30	
1,1,1-Trichloroethane	ND	118			108	89	19.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	127			92	92	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	121			100	93	7.3	70 - 130	30	
1,1-Dichloroethane	ND	121			107	101	5.8	70 - 130	30	
1,1-Dichloroethene	ND	118			118	92	24.8	70 - 130	30	
1,1-Dichloropropene	ND	111			106	104	1.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	142			88	83	5.8	70 - 130	30	l
1,2,3-Trichloropropane	ND	114			95	78	19.7	70 - 130	30	
1,2,4-Trichlorobenzene	ND	138			87	86	1.2	70 - 130	30	l
1,2,4-Trimethylbenzene	ND	127			93	90	3.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	137			110	77	35.3	70 - 130	30	l,r
1,2-Dichlorobenzene	ND	122			94	90	4.3	70 - 130	30	
1,2-Dichloroethane	ND	106			111	82	30.1	70 - 130	30	
1,2-Dichloropropane	ND	122			102	98	4.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	125			94	88	6.6	70 - 130	30	
1,3-Dichlorobenzene	ND	123			93	91	2.2	70 - 130	30	
1,3-Dichloropropane	ND	121			104	90	14.4	70 - 130	30	
1,4-Dichlorobenzene	ND	124			93	91	2.2	70 - 130	30	
2,2-Dichloropropane	ND	123			106	91	15.2	70 - 130	30	
2-Chlorotoluene	ND	122			96	94	2.1	70 - 130	30	
2-Hexanone	ND	116			99	80	21.2	70 - 130	30	
2-Isopropyltoluene	ND	123			96	92	4.3	70 - 130	30	
4-Chlorotoluene	ND	120			94	94	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	125			102	83	20.5	70 - 130	30	
Acetone	ND	111			78	52	40.0	70 - 130	30	m,r
Acrylonitrile	ND	120			95	93	2.1	70 - 130	30	
Benzene	ND	116			104	104	0.0	70 - 130	30	
Bromobenzene	ND	124			99	94	5.2	70 - 130	30	
Bromochloromethane	ND	120			100	93	7.3	70 - 130	30	
Bromodichloromethane	ND	118			109	91	18.0	70 - 130	30	
Bromoform	ND	123			108	89	19.3	70 - 130	30	
Bromomethane	ND	116			130	91	35.3	70 - 130	30	r

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Carbon Disulfide	ND	127			119	96	21.4	70 - 130	30	
Carbon tetrachloride	ND	100			117	91	25.0	70 - 130	30	
Chlorobenzene	ND	117			97	92	5.3	70 - 130	30	
Chloroethane	ND	116			126	94	29.1	70 - 130	30	
Chloroform	ND	123			101	90	11.5	70 - 130	30	
Chloromethane	ND	128			107	82	26.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	121			97	97	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	124			106	102	3.8	70 - 130	30	
Dibromochloromethane	ND	123			104	90	14.4	70 - 130	30	
Dibromoethane	ND	120			104	89	15.5	70 - 130	30	
Dibromomethane	ND	122			102	89	13.6	70 - 130	30	
Dichlorodifluoromethane	ND	126			122	85	35.7	70 - 130	30	r
Ethylbenzene	ND	117			98	94	4.2	70 - 130	30	
Hexachlorobutadiene	ND	121			80	77	3.8	70 - 130	30	
Isopropylbenzene	ND	121			100	94	6.2	70 - 130	30	
m&p-Xylene	ND	119			95	93	2.1	70 - 130	30	
Methyl ethyl ketone	ND	111			91	79	14.1	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	126			129	97	28.3	70 - 130	30	
Methylene chloride	ND	126			113	90	22.7	70 - 130	30	
Naphthalene	ND	137			94	89	5.5	70 - 130	30	I
n-Butylbenzene	ND	129			85	89	4.6	70 - 130	30	
n-Propylbenzene	ND	117			94	95	1.1	70 - 130	30	
o-Xylene	ND	118			98	93	5.2	70 - 130	30	
p-Isopropyltoluene	ND	128			92	90	2.2	70 - 130	30	
sec-Butylbenzene	ND	118			95	91	4.3	70 - 130	30	
Styrene	ND	119			99	95	4.1	70 - 130	30	
tert-Butylbenzene	ND	119			98	93	5.2	70 - 130	30	
Tetrachloroethene	ND	117			96	87	9.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	118			95	84	12.3	70 - 130	30	
Toluene	ND	120			99	95	4.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	134			113	93	19.4	70 - 130	30	I
trans-1,3-Dichloropropene	ND	125			111	95	15.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	139			108	101	6.7	70 - 130	30	I
Trichloroethene	ND	117			104	91	13.3	70 - 130	30	
Trichlorofluoromethane	ND	141			117	78	40.0	70 - 130	30	I,r
Trichlorotrifluoroethane	ND	118			115	85	30.0	70 - 130	30	
Vinyl chloride	ND	127			123	92	28.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	101			99	95	4.1	70 - 130	30	
% Bromofluorobenzene	94	96			101	99	2.0	70 - 130	30	
% Dibromofluoromethane	98	99			102	100	2.0	70 - 130	30	
% Toluene-d8	97	99			100	102	2.0	70 - 130	30	

Comment:

The LCSD is not reported for this batch.

I = This parameter is outside laboratory lcs/lcsd specified recovery limits.
m = This parameter is outside laboratory ms/msd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

QA/QC Data

SDG I.D.: GBB48559

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria

Phyllis Shiller, Laboratory Director
March 08, 2012

NY/NJ CHAIN OF CUSTODY RECORD

Temp 4°C Pg 1 of 1

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
☐ Fax #:
☒ Email: DAVID@ENVIROTRAC.COM

Customer: ENVIROTRAC
Address:

Project: 876 LIVONIA AV
Report to: D. LORTHIOIR
Invoice to: D. LORTHIOIR

Project P.O:
Phone #:
Fax #:

Sampler's Signature: [signature] Date: 2/28/12

Client Sample - Information - Identification

Matrix Code:
DW=drinking water WW=wastewater S=soil/solid O=oil
GW=groundwater SL=sludge A=air X=other

Analysis Request

Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	8260	8270	PEST 8081	PCB 8082	TAL METALS	Soil VOA [] Methanol [] S. Bisulfate [] H2O	GL Soil container (8) oz	GL Soil container (2) oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [X] As is [ ] H2SO4	PL As is pt 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
48559	B-1 (0-2)	S	2/28/12	10:45	X	X	X	X	X			2	1						
48560	B-1 (0-2) DUP			11:10	X	X	X	X	X			2	1						
48561	B-1 (6-8)			11:00	X	X	X	X	X			2	1						
48562	B-2 (0-2)			10:15	X	X	X	X	X			2	1						
48563	B-2 (6-8)			10:30	X	X	X	X	X			2	1						
48564	B-3 (0-2)			9:45	X	X	X	X	X			2	1						
48565	B-3 (6-8)	V	V	10:00	X	X	X	X	X			2	1						
48566	MW-1	L	V	9:00	X	X	X	X	X					3	4	2			

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	2-29-12	9:30 AM
[signature]	[signature]	2-29-12	17:17

Comments, Special Requirements or Regulations:

* FILTER METAL SAMPLE (H2O) IN LAB!

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ 5 Days
☐ 10 Days
☐ Other
* SURCHARGE APPLIES

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ GW Criteria

NY
☐ TOGS GA
☐ TAGM 4046 SOIL
☐ NY375 Unrestricted Soil
☐ NY375 Residential Soil
☐ NY375 Restricted Non-Residential Soil

Data Format
☐ Phoenix Std Report
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

Data Package
☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

State where samples were collected: NY

Appendix D

Laboratory Data for Soil Vapor

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH NELAC
NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:		02/28/12	14:30
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48567
Phoenix ID: BB48567

Project ID: 876 LIVONIA AV
Client ID: VP-3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Volatiles (TO15)							
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethane	ND	*0.247*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trimethylbenzene	2.76	*0.204*	13.6	*1.0*	03/01/12	KCA	TO15
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichloroethane	ND	*0.247*	ND	*1.0*	03/01/12	KCA	TO15
1,2-dichloropropane	ND	*0.216*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.0*	03/01/12	KCA	TO15
1,3,5-Trimethylbenzene	0.7	*0.204*	3.44	*1.0*	03/01/12	KCA	TO15
1,3-Butadiene	ND	*0.452*	ND	*1.0*	03/01/12	KCA	TO15
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dioxane	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
2-Hexanone(MBK)	2.06	*0.244*	8.43	*1.0*	03/01/12	KCA	TO15
4-Ethyltoluene	0.63	*0.204*	3.10	*1.0*	03/01/12	KCA	TO15
4-Isopropyltoluene	ND	*0.182*	ND	*1.0*	03/01/12	KCA	TO15
4-Methyl-2-pentanone(MIBK)	ND	*0.244*	ND	*1.0*	03/01/12	KCA	TO15
Acetone	31.6	*0.421*	75.0	*1.0*	03/01/12	KCA	TO15
Acrylonitrile	ND	*0.461*	ND	*1.0*	03/01/12	KCA	TO15
Benzene	0.43	*0.313*	1.37	*1.0*	03/01/12	KCA	TO15
Benzyl chloride	ND	*0.193*	ND	*1.0*	03/01/12	KCA	TO15

Project ID: 876 LIVONIA AV
Client ID: VP-3

Phoenix I.D.: BB48567

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Bromodichloromethane	ND	*0.149*	ND	*1.0*	03/01/12	KCA	TO15
Bromoform	ND	*0.097*	ND	*1.0*	03/01/12	KCA	TO15
Bromomethane	ND	*0.258*	ND	*1.0*	03/01/12	KCA	TO15
Carbon Disulfide	ND	*0.321*	ND	*1.0*	03/01/12	KCA	TO15
Carbon Tetrachloride	0.06	*0.040*	0.377	*0.25*	03/01/12	KCA	TO15
Chlorobenzene	ND	*0.217*	ND	*1.0*	03/01/12	KCA	TO15
Chloroethane	ND	*0.379*	ND	*1.0*	03/01/12	KCA	TO15
Chloroform	ND	*0.205*	ND	*1.0*	03/01/12	KCA	TO15
Chloromethane	ND	*0.484*	ND	*1.0*	03/01/12	KCA	TO15
Cis-1,2-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
cis-1,3-Dichloropropene	ND	*0.220*	ND	*1.0*	03/01/12	KCA	TO15
Cyclohexane	ND	*0.291*	ND	*1.0*	03/01/12	KCA	TO15
Dibromochloromethane	ND	*0.117*	ND	*1.0*	03/01/12	KCA	TO15
Dichlorodifluoromethane	0.56	*0.202*	2.77	*1.0*	03/01/12	KCA	TO15
Ethanol	7.22	*0.531*	13.6	*1.0*	03/01/12	KCA	TO15
Ethyl acetate	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
Ethylbenzene	1.44	*0.230*	6.25	*1.0*	03/01/12	KCA	TO15
Heptane	1.72	*0.244*	7.04	*1.0*	03/01/12	KCA	TO15
Hexachlorobutadiene	ND	*0.094*	ND	*1.0*	03/01/12	KCA	TO15
Hexane	3.81	*0.284*	13.4	*1.0*	03/01/12	KCA	TO15
Isopropylalcohol	ND	*0.407*	ND	*1.0*	03/01/12	KCA	TO15
Isopropylbenzene	ND	*0.204*	ND	*1.0*	03/01/12	KCA	TO15
m,p-Xylene	5.24	*0.230*	22.7	*1.0*	03/01/12	KCA	TO15
Methyl Ethyl Ketone	37.3	*0.339*	110	*1.0*	03/01/12	KCA	TO15
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
Methylene Chloride	ND	*0.288*	ND	*1.0*	03/01/12	KCA	TO15
n-Butylbenzene	0.28	*0.182*	1.54	*1.0*	03/01/12	KCA	TO15
o-Xylene	2.15	*0.230*	9.33	*1.0*	03/01/12	KCA	TO15
Propylene	ND	*0.581*	ND	*1.0*	03/01/12	KCA	TO15
sec-Butylbenzene	ND	*0.182*	ND	*1.0*	03/01/12	KCA	TO15
Styrene	0.33	*0.235*	1.40	*1.0*	03/01/12	KCA	TO15
Tetrachloroethene	15.1	*0.037*	102	*0.25*	03/01/12	KCA	TO15
Tetrahydrofuran	ND	*0.339*	ND	*1.0*	03/01/12	KCA	TO15
Toluene	5.11	*0.266*	19.2	*1.0*	03/01/12	KCA	TO15
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
trans-1,3-Dichloropropene	ND	*0.220*	ND	*1.0*	03/01/12	KCA	TO15
Trichloroethene	0.09	*0.047*	0.483	*0.25*	03/01/12	KCA	TO15
Trichlorofluoromethane	0.56	*0.178*	3.14	*1.0*	03/01/12	KCA	TO15
Trichlorotrifluoroethane	ND	*0.130*	ND	*1.0*	03/01/12	KCA	TO15
Vinyl Chloride	ND	*0.098*	ND	*0.25*	03/01/12	KCA	TO15
QA/QC Surrogates							
% Bromofluorobenzene	107	*%*	107	*%*	03/01/12	KCA	70 - 130 %

Project ID: 876 LIVONIA AV
Client ID: VP-3

Phoenix I.D.: BB48567

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:		02/28/12	14:40
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48567
Phoenix ID: BB48568

Project ID: 876 LIVONIA AV
Client ID: VP-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Volatiles (TO 15)							
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethane	ND	*0.247*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trimethylbenzene	1.02	*0.204*	5.01	*1.0*	03/01/12	KCA	TO15
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichloroethane	ND	*0.247*	ND	*1.0*	03/01/12	KCA	TO15
1,2-dichloropropane	ND	*0.216*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.0*	03/01/12	KCA	TO15
1,3,5-Trimethylbenzene	0.33	*0.204*	1.62	*1.0*	03/01/12	KCA	TO15
1,3-Butadiene	ND	*0.452*	ND	*1.0*	03/01/12	KCA	TO15
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dioxane	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
2-Hexanone(MBK)	1.97	*0.244*	8.06	*1.0*	03/01/12	KCA	TO15
4-Ethyltoluene	0.38	*0.204*	1.87	*1.0*	03/01/12	KCA	TO15
4-Isopropyltoluene	0.35	*0.182*	1.92	*1.0*	03/01/12	KCA	TO15
4-Methyl-2-pentanone(MIBK)	ND	*0.244*	ND	*1.0*	03/01/12	KCA	TO15
Acetone	36.2	*0.421*	85.9	*1.0*	03/01/12	KCA	TO15
Acrylonitrile	ND	*0.461*	ND	*1.0*	03/01/12	KCA	TO15
Benzene	0.59	*0.313*	1.88	*1.0*	03/01/12	KCA	TO15
Benzyl chloride	ND	*0.193*	ND	*1.0*	03/01/12	KCA	TO15

Project ID: 876 LIVONIA AV
Client ID: VP-1

Phoenix I.D.: BB48568

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Bromodichloromethane	ND	0.149	ND	1.0	03/01/12	KCA	TO15
Bromoform	ND	0.097	ND	1.0	03/01/12	KCA	TO15
Bromomethane	ND	0.258	ND	1.0	03/01/12	KCA	TO15
Carbon Disulfide	ND	0.321	ND	1.0	03/01/12	KCA	TO15
Carbon Tetrachloride	0.05	0.040	0.314	0.25	03/01/12	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.0	03/01/12	KCA	TO15
Chloroethane	ND	0.379	ND	1.0	03/01/12	KCA	TO15
Chloroform	ND	0.205	ND	1.0	03/01/12	KCA	TO15
Chloromethane	ND	0.484	ND	1.0	03/01/12	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.0	03/01/12	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.0	03/01/12	KCA	TO15
Cyclohexane	0.35	0.291	1.20	1.0	03/01/12	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.0	03/01/12	KCA	TO15
Dichlorodifluoromethane	0.54	0.202	2.67	1.0	03/01/12	KCA	TO15
Ethanol	6.77	0.531	12.7	1.0	03/01/12	KCA	TO15
Ethyl acetate	ND	0.278	ND	1.0	03/01/12	KCA	TO15
Ethylbenzene	1.56	0.230	6.77	1.0	03/01/12	KCA	TO15
Heptane	0.86	0.244	3.52	1.0	03/01/12	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.0	03/01/12	KCA	TO15
Hexane	1.19	0.284	4.19	1.0	03/01/12	KCA	TO15
Isopropylalcohol	ND	0.407	ND	1.0	03/01/12	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.0	03/01/12	KCA	TO15
m,p-Xylene	4.5	0.230	19.5	1.0	03/01/12	KCA	TO15
Methyl Ethyl Ketone	40.8	0.339	120	1.0	03/01/12	KCA	TO15
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.0	03/01/12	KCA	TO15
Methylene Chloride	0.33	0.288	1.14	1.0	03/01/12	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.0	03/01/12	KCA	TO15
o-Xylene	1.82	0.230	7.90	1.0	03/01/12	KCA	TO15
Propylene	ND	0.581	ND	1.0	03/01/12	KCA	TO15
sec-Butylbenzene	ND	0.182	ND	1.0	03/01/12	KCA	TO15
Styrene	1.37	0.235	5.83	1.0	03/01/12	KCA	TO15
Tetrachloroethene	17.3	0.037	117	0.25	03/01/12	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.0	03/01/12	KCA	TO15
Toluene	4.63	0.266	17.4	1.0	03/01/12	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.0	03/01/12	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.0	03/01/12	KCA	TO15
Trichloroethene	0.26	0.047	1.40	0.25	03/01/12	KCA	TO15
Trichlorofluoromethane	0.69	0.178	3.87	1.0	03/01/12	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.0	03/01/12	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	03/01/12	KCA	TO15
QA/QC Surrogates							
% Bromofluorobenzene	109	%	109	%	03/01/12	KCA	70 - 130 %

Project ID: 876 LIVONIA AV
Client ID: VP-1

Phoenix I.D.: BB48568

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

ND=Not detected BDL=Below Detection Level RL=Reporting Level

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Report

March 08, 2012

FOR: Attn: Mr David Lorthioir
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:		02/28/12	14:35
Location Code:	ENVIROTR	Received by:	SW	02/29/12	17:47
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBB48567
Phoenix ID: BB48569

Project ID: 876 LIVONIA AV
Client ID: VP-2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Volatiles (TO 15)							
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.0*	03/01/12	KCA	TO15
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethane	ND	*0.247*	ND	*1.0*	03/01/12	KCA	TO15
1,1-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.0*	03/01/12	KCA	TO15
1,2,4-Trimethylbenzene	0.63	*0.204*	3.10	*1.0*	03/01/12	KCA	TO15
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichloroethane	0.52	*0.247*	2.10	*1.0*	03/01/12	KCA	TO15
1,2-dichloropropane	ND	*0.216*	ND	*1.0*	03/01/12	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.0*	03/01/12	KCA	TO15
1,3,5-Trimethylbenzene	0.28	*0.204*	1.38	*1.0*	03/01/12	KCA	TO15
1,3-Butadiene	ND	*0.452*	ND	*1.0*	03/01/12	KCA	TO15
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.0*	03/01/12	KCA	TO15
1,4-Dioxane	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
2-Hexanone(MBK)	ND	*0.244*	ND	*1.0*	03/01/12	KCA	TO15
4-Ethyltoluene	0.44	*0.204*	2.16	*1.0*	03/01/12	KCA	TO15
4-Isopropyltoluene	0.52	*0.182*	2.85	*1.0*	03/01/12	KCA	TO15
4-Methyl-2-pentanone(MIBK)	ND	*0.244*	ND	*1.0*	03/01/12	KCA	TO15
Acetone	97	*0.421*	230	*1.0*	03/01/12	KCA	TO15
Acrylonitrile	ND	*0.461*	ND	*1.0*	03/01/12	KCA	TO15
Benzene	1.1	*0.313*	3.51	*1.0*	03/01/12	KCA	TO15
Benzyl chloride	ND	*0.193*	ND	*1.0*	03/01/12	KCA	TO15

Project ID: 876 LIVONIA AV
Client ID: VP-2

Phoenix I.D.: BB48569

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference
Bromodichloromethane	ND	*0.149*	ND	*1.0*	03/01/12	KCA	TO15
Bromoform	0.12	*0.097*	1.24	*1.0*	03/01/12	KCA	TO15
Bromomethane	ND	*0.258*	ND	*1.0*	03/01/12	KCA	TO15
Carbon Disulfide	0.7	*0.321*	2.18	*1.0*	03/01/12	KCA	TO15
Carbon Tetrachloride	0.05	*0.040*	0.314	*0.25*	03/01/12	KCA	TO15
Chlorobenzene	ND	*0.217*	ND	*1.0*	03/01/12	KCA	TO15
Chloroethane	ND	*0.379*	ND	*1.0*	03/01/12	KCA	TO15
Chloroform	ND	*0.205*	ND	*1.0*	03/01/12	KCA	TO15
Chloromethane	0.57	*0.484*	1.18	*1.0*	03/01/12	KCA	TO15
Cis-1,2-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
cis-1,3-Dichloropropene	ND	*0.220*	ND	*1.0*	03/01/12	KCA	TO15
Cyclohexane	0.97	*0.291*	3.34	*1.0*	03/01/12	KCA	TO15
Dibromochloromethane	ND	*0.117*	ND	*1.0*	03/01/12	KCA	TO15
Dichlorodifluoromethane	0.55	*0.202*	2.72	*1.0*	03/01/12	KCA	TO15
Ethanol	9.61	*0.531*	18.1	*1.0*	03/01/12	KCA	TO15
Ethyl acetate	ND	*0.278*	ND	*1.0*	03/01/12	KCA	TO15
Ethylbenzene	2.51	*0.230*	10.9	*1.0*	03/01/12	KCA	TO15
Heptane	2.84	*0.244*	11.6	*1.0*	03/01/12	KCA	TO15
Hexachlorobutadiene	ND	*0.094*	ND	*1.0*	03/01/12	KCA	TO15
Hexane	3.74	*0.284*	13.2	*1.0*	03/01/12	KCA	TO15
Isopropylalcohol	ND	*0.407*	ND	*1.0*	03/01/12	KCA	TO15
Isopropylbenzene	ND	*0.204*	ND	*1.0*	03/01/12	KCA	TO15
m,p-Xylene	5.94	*0.230*	25.8	*1.0*	03/01/12	KCA	TO15
Methyl Ethyl Ketone	56.8	*0.339*	167	*1.0*	03/01/12	KCA	TO15
Methyl tert-butyl ether(MTBE)	3.52	*0.278*	12.7	*1.0*	03/01/12	KCA	TO15
Methylene Chloride	0.42	*0.288*	1.46	*1.0*	03/01/12	KCA	TO15
n-Butylbenzene	ND	*0.182*	ND	*1.0*	03/01/12	KCA	TO15
o-Xylene	2.45	*0.230*	10.6	*1.0*	03/01/12	KCA	TO15
Propylene	ND	*0.581*	ND	*1.0*	03/01/12	KCA	TO15
sec-Butylbenzene	ND	*0.182*	ND	*1.0*	03/01/12	KCA	TO15
Styrene	3.55	*0.235*	15.1	*1.0*	03/01/12	KCA	TO15
Tetrachloroethene	8.32	*0.037*	56.4	*0.25*	03/01/12	KCA	TO15
Tetrahydrofuran	ND	*0.339*	ND	*1.0*	03/01/12	KCA	TO15
Toluene	8.26	*0.266*	31.1	*1.0*	03/01/12	KCA	TO15
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.0*	03/01/12	KCA	TO15
trans-1,3-Dichloropropene	ND	*0.220*	ND	*1.0*	03/01/12	KCA	TO15
Trichloroethene	0.12	*0.047*	0.644	*0.25*	03/01/12	KCA	TO15
Trichlorofluoromethane	0.7	*0.178*	3.93	*1.0*	03/01/12	KCA	TO15
Trichlorotrifluoroethane	ND	*0.130*	ND	*1.0*	03/01/12	KCA	TO15
Vinyl Chloride	ND	*0.098*	ND	*0.25*	03/01/12	KCA	TO15
QA/QC Surrogates							
% Bromofluorobenzene	104	%	104	%	03/01/12	KCA	70 - 130 %

Project ID: 876 LIVONIA AV
Client ID: VP-2

Phoenix I.D.: BB48569

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date	By	Reference

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director
March 08, 2012

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 08, 2012

QA/QC Data

SDG I.D.: GBB48567

Parameter	Blank ppbv	Blank ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 195462, QC Sample No: BB48569 (BB48567, BB48568, BB48569)										
Volatiles										
1,1,1,2-Tetrachloroethane	ND	ND	109	ND	ND	ND	ND	NC	70 - 130	20
1,1,1-Trichloroethane	ND	ND	97	ND	ND	ND	ND	NC	70 - 130	20
1,1,2,2-Tetrachloroethane	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
1,1,2-Trichloroethane	ND	ND	94	ND	ND	ND	ND	NC	70 - 130	20
1,1-Dichloroethane	ND	ND	94	ND	ND	ND	ND	NC	70 - 130	20
1,1-Dichloroethene	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
1,2,4-Trichlorobenzene	ND	ND	91	ND	ND	ND	ND	NC	70 - 130	20
1,2,4-Trimethylbenzene	ND	ND	103	3.10	3.29	0.63	0.67	6.2	70 - 130	20
1,2-Dibromoethane(EDB)	ND	ND	93	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichlorobenzene	ND	ND	92	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichloroethane	ND	ND	93	2.10	2.06	0.52	0.51	1.9	70 - 130	20
1,2-dichloropropane	ND	ND	100	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichlorotetrafluoroethane	ND	ND	84	ND	ND	ND	ND	NC	70 - 130	20
1,3,5-Trimethylbenzene	ND	ND	95	1.38	1.77	0.28	0.36	25.0	70 - 130	20
1,3-Butadiene	ND	ND	94	ND	ND	ND	ND	NC	70 - 130	20
1,3-Dichlorobenzene	ND	ND	94	ND	ND	ND	ND	NC	70 - 130	20
1,4-Dichlorobenzene	ND	ND	96	ND	ND	ND	ND	NC	70 - 130	20
1,4-Dioxane	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
2-Hexanone(MBK)	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
4-Ethyltoluene	ND	ND	103	2.16	2.01	0.44	0.41	7.1	70 - 130	20
4-Isopropyltoluene	ND	ND	121	2.85	2.91	0.52	0.53	1.9	70 - 130	20
4-Methyl-2-pentanone(MIBK)	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
Acetone	ND	ND	95	242	235	102	99.2	2.8	70 - 130	20
Acrylonitrile	ND	ND	104	ND	ND	ND	ND	NC	70 - 130	20
Benzene	ND	ND	102	3.51	3.70	1.10	1.16	5.3	70 - 130	20
Benzyl chloride	ND	ND	100	ND	ND	ND	ND	NC	70 - 130	20
Bromodichloromethane	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
Bromoform	ND	ND	109	1.24	1.55	0.12	0.15	22.2	70 - 130	20
Bromomethane	ND	ND	89	ND	ND	ND	ND	NC	70 - 130	20
Carbon Disulfide	ND	ND	108	2.18	2.08	0.70	0.67	4.4	70 - 130	20
Carbon Tetrachloride	ND	ND	94	0.314	0.314	0.05	0.05	0.0	70 - 130	20
Chlorobenzene	ND	ND	103	ND	ND	ND	ND	NC	70 - 130	20
Chloroethane	ND	ND	92	ND	ND	ND	ND	NC	70 - 130	20
Chloroform	ND	ND	96	ND	ND	ND	ND	NC	70 - 130	20
Chloromethane	ND	ND	94	1.18	ND	0.57	ND	NC	70 - 130	20
Cis-1,2-Dichloroethene	ND	ND	112	ND	ND	ND	ND	NC	70 - 130	20
cis-1,3-Dichloropropene	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
Cyclohexane	ND	ND	113	3.34	3.61	0.97	1.05	7.9	70 - 130	20
Dibromochloromethane	ND	ND	96	ND	ND	ND	ND	NC	70 - 130	20
Dichlorodifluoromethane	ND	ND	97	2.72	2.52	0.55	0.51	7.5	70 - 130	20
Ethanol	ND	ND	90	18.1	16.8	9.61	8.91	7.6	70 - 130	20

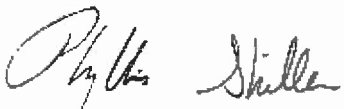
QA/QC Data

SDG I.D.: GBB48567

Parameter	Blank ppbv	Blank ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	ND	108	ND	ND	ND	ND	NC	70 - 130	20
Ethylbenzene	ND	ND	106	10.9	11.0	2.51	2.54	1.2	70 - 130	20
Heptane	ND	ND	107	11.6	11.5	2.84	2.81	1.1	70 - 130	20
Hexachlorobutadiene	ND	ND	90	ND	ND	ND	ND	NC	70 - 130	20
Hexane	ND	ND	105	13.2	13.5	3.74	3.83	2.4	70 - 130	20
Isopropylalcohol	ND	ND	75	ND	ND	ND	ND	NC	70 - 130	20
Isopropylbenzene	ND	ND	110	ND	ND	ND	ND	NC	70 - 130	20
m,p-Xylene	ND	ND	105	25.8	26.2	5.94	6.05	1.8	70 - 130	20
Methyl Ethyl Ketone	ND	ND	97	183	180	62.2	61.2	1.6	70 - 130	20
Methyl tert-butyl ether(MTBE)	ND	ND	99	12.7	12.5	3.52	3.46	1.7	70 - 130	20
Methylene Chloride	ND	ND	88	1.46	ND	0.42	ND	NC	70 - 130	20
n-Butylbenzene	ND	ND	107	ND	ND	ND	ND	NC	70 - 130	20
o-Xylene	ND	ND	101	10.6	10.9	2.45	2.52	2.8	70 - 130	20
Propylene	ND	ND	107	ND	ND	ND	ND	NC	70 - 130	20
sec-Butylbenzene	ND	ND	107	ND	ND	ND	ND	NC	70 - 130	20
Styrene	ND	ND	104	15.1	15.2	3.55	3.58	0.8	70 - 130	20
Tetrachloroethene	ND	ND	96	56.4	57.8	8.32	8.53	2.5	70 - 130	20
Tetrahydrofuran	ND	ND	113	ND	ND	ND	ND	NC	70 - 130	20
Toluene	ND	ND	93	31.1	31.4	8.26	8.34	1.0	70 - 130	20
Trans-1,2-Dichloroethene	ND	ND	100	ND	ND	ND	ND	NC	70 - 130	20
trans-1,3-Dichloropropene	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
Trichloroethene	ND	ND	98	0.644	0.698	0.12	0.13	8.0	70 - 130	20
Trichlorofluoromethane	ND	ND	88	3.93	3.76	0.70	0.67	4.4	70 - 130	20
Trichlorotrifluoroethane	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
Vinyl Chloride	ND	ND	93	ND	ND	ND	ND	NC	70 - 130	20
% Bromofluorobenzene	96.5	96.5	97	104	103	104	103	1.0	70 - 130	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria



Phyllis Shiller, Laboratory Director
March 08, 2012

CHAIN OF CUSTODY RECORD AIR ANALYSES

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: DAVID@ENVIROTRAC.COM

Report to: Envirotrac
Address:
Project Mgr: Dave Lorthior
Phone #

Invoice to:
Address:
P.O. #
Quote #

Project Name: 876 LIVONIA AVE
Location:
State:
Sampled by:

Incoming Pressure

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-14	TO-15	Is Canister Returned Unused? Y/N
		LAB USE ONLY											MATRIX			ANALYSES		
6 48567	VP-3	489	6.0	-30	-4.5	5356	14.5	8:30	14:30	2/28/12	-30	-4.5					X	
		486	↓	↓		4490	↓											Y
6 48568	VP-1	475	↓	↓	-4.5	4982	↓	8:45	14:40	2/28/12	-30	-4.5					X	
4 48569	VP-2	484	↓	↓	-3.0	4494	↓	8:35	14:35	2/28/12	-29.5	-3.0					X	

Relinquished by:	Accepted by:	Date:	Time:
		2/28/12	
		2-29-12	9:30
		2-29-12	17:17

Criteria Requested: Deliverable:
RCP ☐
MCP ☐
State where samples collected:

Data Format:
Excel ☐ Equis ☐
PDF ☐ Other: ☐
GISKey ☐

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: Date:

* 6L CANS SET FOR 6HR TIME